

III JORNADAS AEOS - FUNDACIÓN BBVA

"Abriendo puertas" / "Opening doors"

Daniela Coimbra

ESCOLA SUPERIOR DE MÚSICA E DAS ARTES DO ESPECTÁCULO



esmae

**Superior School providing
specialised education and
professional training for
performers, conductors
and composers**

PSYCHOLOGY OF MUSICAL PERFORMANCE

- ❑ What are the mental and physical requirements necessary to perform?
- ❑ How can we enhance Musical Performance?

PREPARING A MUSICAL PERFORMANCE

- ❑ Process complex musical information
(Sight-reading, analysis, memorisation...)
- ❑ Instrumental or vocal control
- ❑ Coordination and synchrony with fellow performers
- ❑ Interpretative insight and innovation
- ❑ Able to perform in public
- ❑ Understand the audience's expectations

MUSICAL ACTIVITY

1:PRACTICE

*Biographical precursors of
musical excellence*
(Sloboda, 1993)

End of secondary school

10.000 hours of formal study

+

Informal study (concerts, seminars)



Chetham's School of Music
Manchester

MUSICAL ACTIVITY

2:ISOLATION

- ☐ Practice room isolation
- ☐ Frequent travelling
- ☐ Family isolation
- ☐ Reluctance in sharing problems
(competition)

MUSICAL ACTIVITY

3: *STAGE-FRIGHT*

Fight-Flight emergency reaction



MUSICAL ACTIVITY

3: STAGE-FRIGHT

Guildhall School of music and Drama
(Kokotsaki et al., 2001; Coimbra, 2004)

**54 students (year 1,2,3)
ages 18 and 25**

- ☐ **100% felt anxiety**
- ☐ **55% felt anxiety
negatively affected the
performance**

MUSICAL ACTIVITY

4: FINANCIAL PRESSURE

- ☐ Performing
- ☐ Teaching
- ☐ Recording
- ☐ Freelancing

MUSICAL ACTIVITY

5: PHYSICAL CONSTRAINTS

57 Orchestras worldwide (James, 1997)

- ❑ 56% felt pain while playing
- ❑ 34% felt pain more than once a week
- ❑ 19% stopped performing. Pain in neck, shoulders, back
- ❑ 83% felt training did not prepare them for physical and psychological stressors

MUSICAL ACTIVITY

5:PHYSICAL CONSTRAINTS



MUSICAL ACTIVITY

5:PHYSICAL CONSTRAINTS



MUSICAL ACTIVITY

5:PHYSICAL

CONSTRAINTS



FUNDAÇÃO CASA DA MÚSICA



FUNDAÇÃO CASA DA MÚSICA

- ❑ Orquestra Sinfónica do Porto Casa da Música (94 Musicians)
 - ❑ Identify problems
 - ❑ Discuss strategies
 - ❑ Implement solutions

FACTORS INFLUENCING THE ONSET OF MUSCULOSKELETAL PROBLEMS

Repetitive movements

Not controllable

Diet/Sleep/Tobacco

Controllable

Previous Trauma

Not controllable

Daily Practice/work

Not controllable*

Repertoire

Not controllable

Technique and Posture

Partially contr.

Stress

Controllable

FACTORS INFLUENCING THE ONSET OF MUSCULOSKELETAL PROBLEMS

Age

Not Controllable

Gender

Not Controllable

Environmental/work conditions

Partially Contr.

Musical Instrument

Not Controllable

Lack of prevention

Controllable

FUNDAÇÃO CASA DA MÚSICA

- ❑ Interviews (orchestra sections)
 - ❑ Hearing problems
 - ❑ Musculoskeletal Problems
 - ❑ Joint, back, neck and shoulder pain
 - ❑ Bruxism
 - ❑ Anxiety

HEARING

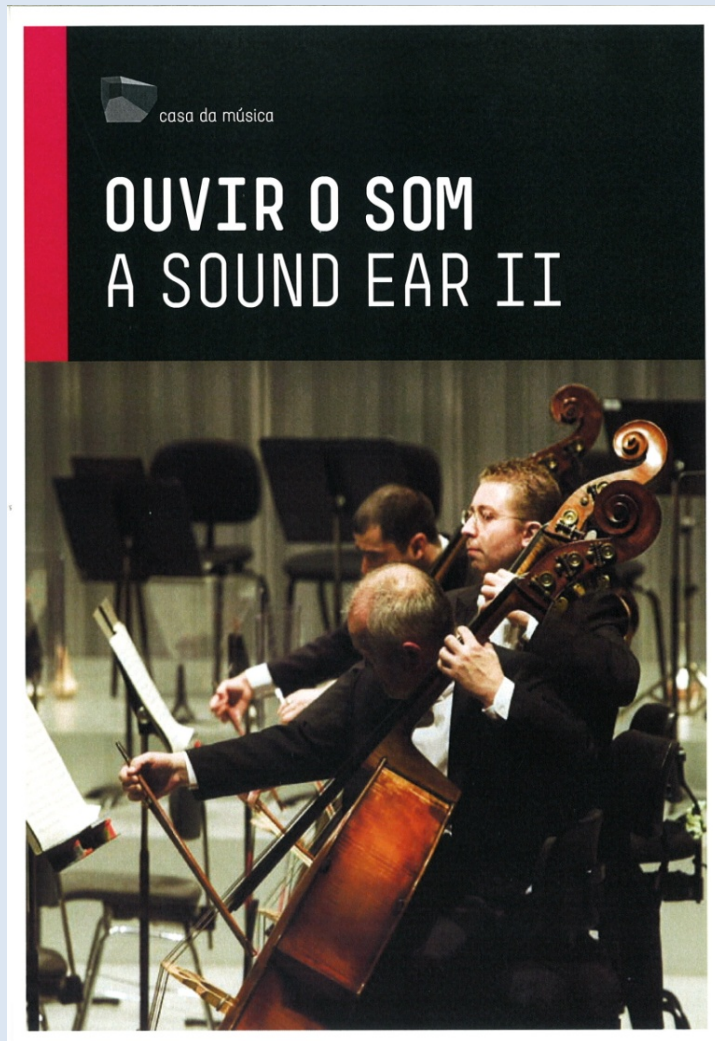
Superior School of Health Technology

Porto Polytechnic Institute

Environmental Health and Audiology

Hearing problems

- ☐ Degree of exposure
- ☐ Type and duration of exposure
- ☐ Peak exposures
- ☐ Placing in orchestra
- ☐ Repertoire



- ❑ ***A Sound Ear***
(2008, ABO)
- ❑ **Seminar (Allison Wright Reid)**
- ❑ **Book Launch**

Hearing problems

- ❑ Adequate insulation of rehearsal and practice rooms (Casa da Música)
- ❑ Seminar and Discussion
 - ❑ Individual hearing protection
 - ❑ Stage protection (sound barriers)

Hearing problems

- ❑ Protocol
- ❑ Implementation of complete hearing tests specific for musicians
- ❑ Subsequent medical referral (FREE)

PAIN

***Institute of Biomedical Sciences Abel Salazar –
University of Porto
Immuno-physio-pharmacology***

- ❑ **Map out Pain in the orchestra**
- ❑ **Compare the intensity and the prevalence of PRMSD into professional orchestra musicians playing string and wind instruments**
- ❑ **Inclusion Criteria: diagnostic of playing related injury by a physiotherapist**

☐ **112 Musicians from 3 Professional Orchestras**

☐ **Orquestra Sinfónica do Porto, Orquestra do Norte and Orquestra das Beiras**

Main MS Complaints – Winds

Flute

- Left Shoulder 66%
- Cervical 83%

Clarinet and oboe

Right thumb 100%

Trombone

- Lower back pain 71%

Main MS Complaints - Strings

Violin

Left shoulder 42%
Right shoulder 24%
Cervical pain 52%
Lower back pain 42%

Viola

Cervical pain 46%

Cello

Cervical pain 54%
Lower back pain 46%

Exercises

- ☐ Discuss the type and adequacy of warming – up and stretching exercises
- ☐ Specific exercises to treat
 - ☐ Lower back pain
 - ☐ Cervical pain
 - ☐ Shoulder pain

PAIN

Dental School – University of Porto

Occlusion, TMJ, and Orofacial pain

- ❑ **Seminar: orofacial problems of Musicians**
- ❑ **Protocol**
- ❑ **Panoramic X-Ray, dental examination, and dental casts – *Pierre Fabre and Bial***
- ❑ **20 Musicians Orquestra Sinfónica do Porto**
- ❑ **100 Musicians (Performing Arts School, Military Band and Philharmonic Band)**

- ❑ **Muscular Hyperactivity(winds)**
- ❑ **Biomechanical of the Temporomandibular Joint (bassoon, oboe, violin)**
- ❑ **Posture (repetitive movements: cervical Pain)**
- ❑ **FREE TREATMENT FOR MUSICIANS**

RESULTS (2007-2014)

- ☐ **Organization of 5 meetings in different schools and venues**
- ☐ **Conferences (national and international)**
- ☐ **Publications (15)**
- ☐ **Devise strategies**
- ☐ **Provide treatment**

“Opening Doors”

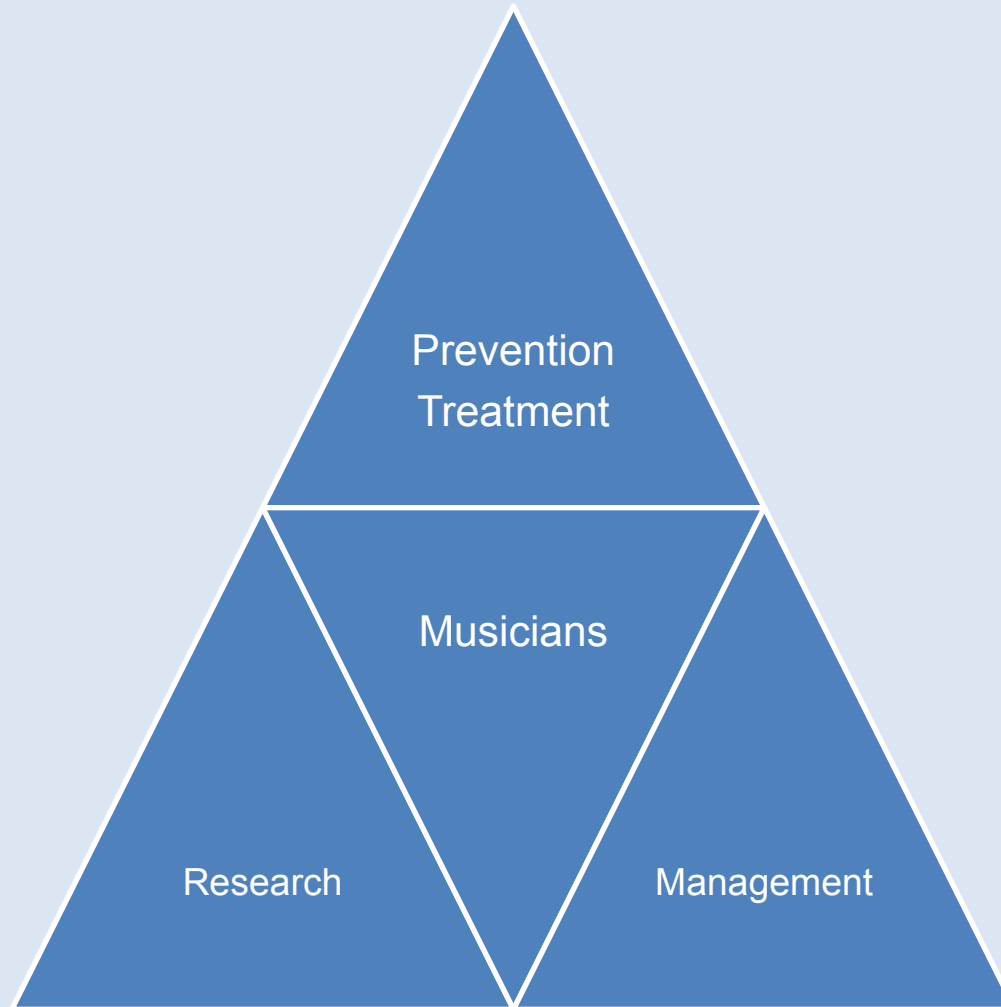
- ❑ Discussing strategies to address physical problems have a positive psychological impact**

“Opening Doors” Network



CdM, ESMAE, ESTSP, ICBAS, FMDUP, INP

“Opening Doors” Centralised Action



“Opening Doors”

- ❑ New challenges in solving problems on a musical context may occur**
- ❑ Optimise musicians' health, well-being and training**
- ❑ Significant contribution to musical life**