



## The role musical preferences play in the modulation of emotions for people with mental disorders



Stefan Gebhardt, M.D.<sup>a,\*</sup>, Markus Kunkel, Ph.D.<sup>b</sup>, Richard von Georgi, Ph.D., M.A.<sup>b,1</sup>

<sup>a</sup> Department of Psychiatry and Psychotherapy, University of Marburg, Rudolf-Bultmann-Str. 8, D-35033 Marburg, Germany

<sup>b</sup> Department of Music Science and Music Education, Justus-Liebig-Universität Giessen, Karl-Glöckner-Str. 21D, D-65394 Giessen, Germany

### ARTICLE INFO

#### Article history:

Available online 6 January 2016

#### Keywords:

Music  
Preferences  
Mental disorders  
Psychiatry  
Emotion  
Relaxation

### ABSTRACT

The objective of this study was to explore the relationship between the use of music in everyday life for the modulation of emotions and musical preferences, focussing on people with mental disorders. Musical preferences were assessed in the population of a psychiatric hospital according to different musical preference categories. The IAAM (inventory for the assessment of activation and arousal modulation through music) measured the situation-dependent use of music in everyday life. Data were compared to a healthy control population.

The results indicated that people with mental disorders used music for the reduction of emotions with negative valence. This was especially true for those individuals who preferred reflective and complex music (such as classical music). These participants primarily had diagnoses of personality disorders, and they used music less for fun than healthy comparators. Connections between musical preferences and emotional modulation patterns in the use of music in everyday life were much more differentiated in the general population than in the psychiatric cohort. Further studies on the basis of this empirical approach are warranted.

© 2016 Elsevier Ltd. All rights reserved.

### Introduction

The high impact of music on the psyche and, therefore, also on mental disorders is well-documented. Since ancient times music has been an integral part of curative processes in many cultures. Therefore, music reception should play a crucial role within the dynamic of mental disorders, and hence for their course and therapy (Gebhardt, Kunkel, & von Georgi, 2014b; Gebhardt & von Georgi, 2007; Sherratt, Thornton, & Hatton, 2004).

Previous studies showed that people with mental disorders use music more for emotion modulation than healthy individuals (Gebhardt et al., 2014b). The results also suggested that people with mental disorders use music especially for either the reduction of negative emotions, or for relaxation and cognitive problem solving, whereas healthy controls are seeking positive emotional stimulation. No significant differences between people with mental disorders and controls considering the frequency of the use

of different musical preferences were found. However, different diagnostic groups have not been tested among each other and the reference group, respectively.

The aim of the current investigation was to explore the relationship between the use of music in everyday life and musical preferences, focussing on people with mental disorders.

### Methods

#### Study sample

The participants of this study ( $n = 190$ ; thereof 111 female and 79 males), who agreed to take part out of the group of people approached ( $N = 312$ ) had a mean age of  $37.4 \pm 13.3$  years (range 18–82 years) (see Gebhardt, Kunkel, & von Georgi, 2014a). Inclusion criterion was the in- or outpatient treatment of a mental disorder. Exclusion criteria were a severe or acute episode of a mental disorder or the missing consent for participating in the study. No individual received music therapy during the actual treatment period. The overall cultural background of music socialization was Central European. All people gave written informed consent; the study was approved by the Ethics Committee of the University of Marburg, Germany. The distribution of diagnostic groups according to ICD-10 (Dilling & Mombour, 2013) was as follows:

\* Corresponding author. Tel.: +49 6222 552001.

E-mail addresses: [Stefan.Gebhardt@uni-marburg.de](mailto:Stefan.Gebhardt@uni-marburg.de) (S. Gebhardt), [markus.kunkel@musik.uni-giessen.de](mailto:markus.kunkel@musik.uni-giessen.de) (M. Kunkel), [Richard.v.Georgi@musik.uni-giessen.de](mailto:Richard.v.Georgi@musik.uni-giessen.de) (R. von Georgi).

<sup>1</sup> Acting professor at the International Psychoanalytic University Berlin, Germany.

- $n = 66$  (36.4%) affective disorders (F3).
- $n = 46$  (24.2%) neurotic, stress-related and somatoform disorders (F4).
- $n = 34$  (17.9%) disorders of adult personality and behavior (F6).
- $n = 22$  (12.2%) schizophrenia spectrum disorders (F2).
- $n = 12$  (6.3%): psychoactive substance use (F1 group of ICD-10).
- $n = 6$  (3.2%) behavioral syndromes associated with physiological disturbances and physical factors (F5).
- $n = 3$  (1.6%) organic disorders (F0).
- $n = 1$  (0.5%) disturbance of activity and attention in adulthood (F9).

#### Reference sample

The reference sample including 430 healthy individuals (219 female and 211 males) had a mean age of  $34.6 \pm 18.8$  years (range 12–80 years). The participants were pooled from the following study samples:

- $n = 94$  (21.9%) pupils.
- $n = 129$  (30.0%) first-semester students.
- $n = 106$  (24.7%) older individuals recruited by chance from selected middle-class companies, insurance institutions, and club associations (Lahn-Dill-Kreis, Kreis Gießen, Germany).
- $n = 101$  (23.5%) participants of a general practitioner (see von Georgi, Steinbrück, Schütz, & Rein, 2008).

#### Questionnaires

The participants of the study and the reference sample were asked to fill out the following self-assessment questionnaires. There were no further implications, in particular no experimental parts of the study.

The IAAM (Inventory for the Measurement of Activation and Arousal Modulation) is a questionnaire for the measurement of the use of music in everyday life with a high reliability (over 0.80 for all scales) and validity, including Rasch-scaling (von Georgi, 2007, 2013; von Georgi, Cimbali, & von Georgi, 2009; von Georgi, Göbel, & Gebhardt, 2009). The items of the IAAM ask for the active and conscious use of music (e.g., *I am listening to music, if I want to do, change, feel or remember something*) and it consists of the following five scales (11 items per scale): relaxation (RX: somatic and psychological relaxation through music), cognitive problem solving (CP: thinking about social and internal problems and affects, including memory aspects), reduction of negative activation (RA: modulation of a strong negative activation and emotional arousal), fun stimulation (FS: positive psychological and motoric activation and establishment of social relationships) and, finally, arousal modulation (AM: the modulation of concentration skills and general capability) (von Georgi, 2007; von Georgi, Grant, von Georgi, & Gebhardt, 2006).

An additional questionnaire was included in this study (musical preference items: 16 forced choice categories on the background of the study of Rentfrow and Gosling (2003), and questions about the use of music in everyday life in connection with drug abuse). The musical preference categories are:

upbeat & conventional (U&C: pop, oldies, rock'n roll, country, soundtrack, german folk music, religious);  
 reflexive & complex (R&C: jazz, classical music, blues);  
 intensive & rebellious (I&R: rock, hard rock, heavy metal, alternative, grunge) and  
 rhythmical & energetic (R&E: soul, funk, Rap, hip-hop, techno, dance, latin, reggae).

**Table 1**

Distribution of music preferences on diagnostic groups of the study sample and on the reference sample.

Groups	Music preferences				Total
	R&C	I&R	U&C	R&E	
F0	0	0	1	0	1
F1	2	1	4	2	9
F2	6	4	8	1	19
F3	14	15	26	4	59
F4	5	14	15	7	41
F5	1	2	1	1	5
F6	10	9	8	2	29
F9	0	1	0	0	1
Reference group with age <30 years	33	78	56	53	220
Reference group with age $\geq 30$ years	43	28	128	9	208
Total	114	152	247	79	592

Note: Preference groups according to Rentfrow and Gosling (2003): R&C = reflexive & complex (jazz, classic, blues); I&R = intensive & rebellious (rock, hard rock, heavy metal, alternative, grunge); U&C = upbeat & conventional (pop, oldies, rock'n roll, country, soundtrack, german folk music, religious); R&E = rhythmical & energetic (soul, funk, Rap, hip-hop, techno, dance, latin, reggae). Diagnostic groups according to Dilling & Mombour (2013): F1 = psychoactive substance use, F2 = schizophrenia spectrum disorders, F3 = affective disorders, F4 = neurotic, stress-related and somatoform disorders, F5 = behavioral syndromes associated with physiological disturbances and physical factors; F6 = disorders of adult personality and behavior; F9 = disturbance of activity and attention in adulthood.

#### Statistics

A one-way variance analysis (ANOVA) with Scheffé-post-hoc-tests for continuous variables was conducted in order to identify differences in musical preferences among the diagnostic groups according to the international classification of mental disorders (ICD-10, Dilling & Mombour, 2013) and the reference samples, respectively. Differences in frequencies of musical preferences were calculated using chi-square-tests. To investigate differences among the musical preferences concerning emotional modulation by music, another one-way ANOVA was undertaken with the preference groups as independent variables and the IAAM scales as dependent variables.

Because of the exploratory nature of this study a correction for multiple testing was not included; in this study the term "significant" was used for results with a  $p$ -value of  $\leq 0.05$  and "non-significant" results and/or trends as well as redundant or totally self-evident data were not listed. The data was analyzed using Statistical Package of the Social Sciences (SPSS 18.0 for Windows) software.

#### Results

##### Results regarding differences among diagnostic groups and the reference sample concerning musical preferences

We found trends towards differences in musical preferences among the diagnostic groups according to ICD-10 (ANOVA;  $p = 0.054$ ) (see Table 1), also when controls were divided into young (<30 years) and old ( $\geq 30$  years) controls ( $p = 0.066$ ). However, post-hoc tests showed no significant differences.

Investigating the difference between the frequency of each preference group with the reference group within each diagnostic category (chi-square-tests), we found a trend towards more R&C (e.g., classical music) and less U&C (e.g., pop) and R&E (e.g., soul, funk, hip-hop) preferences in the group of personality disorders (F6) compared to the controls ( $p = 0.051$ ). The other diagnostic groups did not differ significantly from the reference group concerning musical preferences. The distribution patterns of musical preferences among the diagnostic groups are displayed in Fig. 1

Download English Version:

<https://daneshyari.com/en/article/343626>

Download Persian Version:

<https://daneshyari.com/article/343626>

[Daneshyari.com](https://daneshyari.com)