

Suvi Saarikallio

Music as Mood Regulation in Adolescence







ABSTRACT

Saarikallio, Suvi

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Diss.

The present work explored music's meaning from the perspective of adolescents' psychosocial development and mood regulation. The aim was to increase understanding of psychological goals and processes related to affective experiences of music in everyday life. The research consisted of three sub-studies proceeding from a broad exploration of music's psychological functions toward a specific understanding of mood-regulatory processes. The first study was a meta-analytical review of previous research. It resulted in a theoretical categorization of four areas in which music supports adolescent psychosocial development: *identity, agency, interpersonal relationships, and emotions*. The study provided a theoretical framework for studying music's psychological functionality, and demonstrated the centrality of mood-related meanings. The second study focused on defining the concept of music-related mood regulation. The data were gathered by means of group interviews and follow-up forms, and then analyzed using grounded theory methods. As a result, a theoretical model of adolescents' use of music for mood regulation was constructed. Mood regulatory goals were divided into two main goals, *mood improvement* and *mood control*, and seven regulatory strategies, *entertainment, revival, strong sensation, diversion, discharge, mental work, and solace*. The model discusses issues that affect the selection of strategies, musical activities that are used to realize them, and associated mood changes. The third study was a cross-sectional survey in which a scale for assessing the use of music for mood regulation was developed based on the regulatory strategies. Confirmatory factor analyses of the data supported the measurement model, and a pioneering scale *Music in Mood Regulation (MMR)* was established. The scale was used to study differences in the use of music for mood regulation, and the results showed that girls use music for mood regulation more than boys, and older adolescents more than younger ones. The use of music for mood regulation was also related to musical background, musical preferences, and general mood regulation abilities. In sum, the current work was a systematic exploration of psychological processes related to the use of music for mood regulation. It promoted understanding of the functionality of music in the context of adolescent development, affective experiences, and self-regulation.

Keywords: Music, affect, mood regulation, emotion regulation, adolescence, everyday life, psychology

Author's address: Suvi Saarikallio
Department of Music
P.O.Box 35 (M)
FIN-40351, University of Jyväskylä, Finland
suvila@campus.jyu.fi

Supervisor: Professor Jukka Louhivuori
Department of Music
University of Jyväskylä, Finland

Reviewers: Professor Richard Ashley
Northwestern University, USA

Associate Professor Patrik N. Juslin
Department of Psychology
Uppsala University, Sweden

Opponent: Professor Richard Ashley
Northwestern University, USA

PREFACE

This dissertation sprang from my love for music, and an interest in understanding its meaning. The work itself was conducted in the Department of Music at University of Jyväskylä, during the period between 2003-2006. I am grateful to a number of great people who contributed to my work.

First of all, I want to thank my supervisor, Professor Jukka Louhivuori, who warmly encouraged and advised me during all these years, in my journey of becoming a researcher. I also want to thank Professor Jaakko Erkkilä for his supportive attitude and constructive advice not only in constructive grounded theory but also in research more broadly.

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Most importantly, I want to thank my husband Matti, and my family and friends for making my life happy and full, providing me with the most significant resources for conducting this work.

Espoo, December, 4th 2006
Suvi Saarikallio

LIST OF ORIGINAL PUBLICATIONS

The thesis is based on the following publications, which are referred to in the text by their Roman numerals (I-V)

- I Laiho, S. (2004). The psychological functions of music in adolescence. *Nordic Journal of Music Therapy*, 13 (1), 49-65.
- II Saarikallio, S. (2006). The strategies for regulating mood by musical activities in adolescence. *Proceedings of the 21st International Seminar on Research in Music Education*, 16-21st July 2006, Bali, Indonesia.
- III Saarikallio, S. & Erkkilä, J. (2007). The role of music in adolescents' mood regulation. *Psychology of Music*, 35 (1), 88-109.
- IV Saarikallio, S. (2006). Differences in adolescents' use of music in mood regulation. *Proceedings of the 9th International Conference on Music Perception and Cognition*, 22nd -26th August 2006, Bologna, Italy.
- V Saarikallio S. (submitted) Music in mood regulation: Initial scale development.

AUTHOR'S CONTRIBUTION TO PUBLICATIONS

The author is the first author of all publications. She is also the sole author of all publications except publication number III, in which professor Jaakko Erkkilä helped the author in methodological design and data analysis.

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ORIGINAL PAPERS

1 INTRODUCTION

Music is an integral part of our society, everyday life, and behavior, and its importance seems to be strongly related to its emotional power. Most people have subjective experiences about music's ability to touch emotions, make one feel happy, and even comfort and heal. Age-old questions like "Why is music important to human beings?" or "Why does music touch us emotionally?" gave birth to the present work, and the underlying motivation was to increase our understanding of music's emotional meaning.

Questions related to the emotional meaning of music have connections to a variety of disciplines, and the current research stood on interdisciplinary foundations between the theories of general psychology and the multitude of approaches in music research. Music psychologists have started to explore factors that contribute to the emotional experience of music (Juslin & Sloboda, 2001; Scherer & Zentner, 2001; Juslin & Laukka, 2004). Music sociology and media research have been increasingly interested in the everyday life uses of music, including the use of music for mood regulation (Arnett, 1995; Ashley & Durbin, 2006; DeNora, 1999; 2000; 2001; Greasley & Lamont, 2006; Hallam, 2001; Hargreaves & North, 1999; Sloboda & O'Neill, 2001). Growing interest in the relationships between music, emotions, quality of life, subjective well-being and health in everyday life has also emerged in the fields of community music therapy and stress research (Ansdell, 2002; Beronius Haake, 2006; Batt-Rawden, 2006; Batt-Rawden, DeNora, & Ruud, 2005; Ruud, 1997; Von Georgi, 2006). By addressing the processes of adolescent mood regulation, the current research was also related to several issues within general psychology, including adolescent development, psychosocial factors, emotions, self-regulation, coping, and emotional intelligence.

Situated in a multidisciplinary position, the present study wished to contribute to the current scientific dialogue about music's emotional meaning by advancing theoretical and conceptual development about underlying psychological processes, especially about the mechanisms of music-related mood regulation.

2.1 Studying psychological goals

The current study approached the riddle of music and emotion from a psychological perspective. Sloboda and Juslin (2001) postulate that psychology searches for causal and internal explanations for human behavior, and aims at understanding psychological mechanisms and the ends they serve. The current work focused on the subjective emotional, specifically mood-regulatory, goals related to everyday life musical activities, and endeavored to understand the mechanisms by which these mood-regulatory goals were realized. Also, it explored individual differences in the use of music for mood regulation.

Musical experiences occur in a complex interaction between music, individual, and context, and the current study focused on the individual. Furthermore, the main interest was not only on the experiences evoked by music in the person but also on the underlying goals and motives that direct the person's musical activities, and the mechanisms through which these goals are realized. Research on music tends to discuss music as a subject or stimulus, which produces reactions and responses in the individual. It is important not to let this lead to a passive understanding of the listener. The person listening to music is not a passive responder, but an active agent who constructs his or her psychological meanings of music. Therefore, this work treated the individual as a subject who engages in musical behavior for specific personal reasons, and the music-related experiences were studied from the perspective of the wholeness of an individual's goal-oriented psychological functioning.

The underlying assumption of the current research was that engagement in music is a goal-oriented activity of the psyche, whether or not the individuals are consciously aware of it. Theoretically, this approach comes under the concept of self-regulation, which considers human behavior as systematic processes of setting goals and steering toward their achievement (Zeidner, Boekaerts, & Pintrich, 2000). Considering music as a resource for satisfying personal needs in everyday life is also one of the current interests of music sociology (DeNora, 2001), and the perspective is comparable to the 'uses and gratifications' approach, which studies individuals as active agents who use media for their personal needs (Arnett, 1995; Arnett, Larson, & Offer, 1995; De Nora, 2001, North, Hargreaves & Hargreaves, 2004). Similar lines of thought have also been promoted, for example, by Christopher Small (1998), who has proposed the term *musicing* to stress the importance of understanding music as an activity of an individual.

2.2 Music and emotion

The current study had connections to a variety of disciplines, but fundamentally, it was situated within the research on music and emotion. Due to the difficulty of studying musical emotions, the emphasis on the cognitive

approach, and the appreciation of intellectual attitude towards music, the topic of music and emotion has been widely neglected in research during the last decades (Juslin & Sloboda, 2001). Recently, however, it has become almost fashionable in the field of music psychology to study emotion. The boom in affective research is reflected, for example, in an increasing number of emotion-related studies in recent conferences, and by the recent book on music and emotion, edited by Juslin and Sloboda (2001), which provides an overview to the breadth of approaches from biology to sociology.

Gabrielsson (2002) has postulated that music researchers should distinguish between the emotions that individuals perceive in the music and the emotions they feel or experience as a result of engaging in music. The current study focused on the experiences. Recent research in this field has started to explore various mechanisms by which music evokes emotional experiences (Juslin & Laukka, 2004; Scherer & Zentner, 2001; Scherer, 2004; Sloboda & Juslin, 2001), or what kind of emotional experiences are obtained from music in everyday life (DeNora, 2001; Juslin & Laukka, 2004; Saarikallio, 2005; Sloboda & O'Neill, 2001; Wells & Hakanen, 1991).

Most emotion theorists endorse the view that emotional reactions comprise three components: the subjective experience (feeling) component, the expressive and behavioral component, and the physiological component (e. g. Scherer, 2004). This distinction has also been reflected in measuring emotional reactions through self-reports, behavioral expressions, and physiological reactions. Music has been shown to affect all of these components (Sloboda & Juslin, 2001). The current study focused on the subjective experience component of moods and emotions, also referred to as feeling (Hoeksma, Oosterlaan, & Schipper, 2004; Gohm & Clore, 2000; Larsen, 2000a).

Despite the recent growth of interest in studying music and emotion, there is still a serious lack of theoretical understanding of the psychological processes underlying music-related affective experiences. The field is in need of comprehensive theoretical frameworks and common paradigms. Sloboda and Juslin (2001) have stated that theory development has been hindered partly because of the reluctance of music researchers to turn to emotion psychology for theoretical guidance. This has been a vital problem also in the study of mood regulation by music. Researchers have engaged in exploring mood-related uses of music in everyday life, but there has been little discussion about general psychological theories about mood regulation or self-regulation. The current study, therefore, aimed at increasing theoretical and conceptual understanding of the underlying mechanisms related to the emotional use of music, and relied theoretically on the concept of mood regulation, one of the most essential psychological processes related to emotions.

2.3 Mood regulation

Contemporary conceptions about emotions emphasize their functional nature; emotions are understood as processes which promote adaptive behavior. Emotions are considered to be response tendencies or reactions to events that either advance or threaten an individual's goals, and which steer the individual towards adaptive functioning (Cacioppo & Gardner, 1999; Damasio, 1995; Fridja, 1988; Salovey, Bedell, Detweiler, & Mayer, 1999; 2000). Sometimes, however, emotions also need to be regulated for adaptive behavior (Bridges, Denham, & Ganiban, 2004; Cicchetti, Ackerman, & Izard, 1995; Kokkonen & Pulkkinen, 1996). Emotion regulation has been considered as part of emotional intelligence, the adaptive understanding and utilization of emotions (Bar-On, 1997; Feldman Barrett & Gross, 2001; Goleman, 1995; Mayer & Salovey, 1997).

The term mood regulation was employed in the current study. Moods are generally differentiated from emotions by their longer duration and lack of specific cause (Gross, 1998; Oatley & Jenkins, 1996; Parkinson, Totterdell, Briner, & Reynolds, 1996). In addition, moods are considered to provide information about internal states, and bias cognition, whereas emotions are thought to signal states of the environment, and bias action (Davidson 1994; Gross, 1998; Larsen, 2000a). Gross (1998) differentiates mood regulation from emotion regulation as being more about experience than behavior. Music-related regulation includes features of both concepts, but in the current study the term *mood regulation* was chosen to be employed instead of *emotion regulation* because music-related regulation seemed to be more about regulating undifferentiated mood states and subjective experiences than about regulating specific emotional and behavioral responses to specific events.

The concept of mood regulation does not primarily discuss the activated emotion or mood itself, but instead the changes that occur in it (Cole, Martin, & Dennis, 2004). Mood regulation refers to processes directed toward modifying or maintaining the occurrence, duration, and intensity of both negative and positive moods (Cole et al., 2004; Eisenberg & Spinrad, 2004; Gross, 1998; Parkinson et al., 1996, Thompson, 1994). In general, emotion regulation includes regulation of all components related to the emotion generation process (e.g. altering situation, focusing attention, modifying appraisals, feelings, and physiological responses, controlling expression and behavior) (Eisenberg, & Spinrad, 2004; Gross & John, 2003; Larsen, 2000a.).

The concept of mood or emotion regulation originates conceptually from the defense mechanisms based on the psychoanalytic tradition and the coping strategies studied in stress research. Accordingly, emotion regulation has been referred to as emotion-focused coping, or emotional self-regulation (Clare & Robinson, 2000; Eisenberg & Spinrad, 2004). Mood regulation may or may not be conscious (Gross, 1998). It has been considered to be motivated, for example, by hedonic motivation, the tendency to strive away from negative moods toward positive moods either in the short term or the long term (Larsen, 2000a;

2000b; Zillmann, 1988a; 1988b). One important motivation has also been considered to be the attempt to minimize discrepancies between the current state and the desired state (DeNora, 2001; Hoeksma, Oosterlaan, & Schipper, 2004; Larsen, 2000a). Hochschild's (1979; 1983) discussion on emotional work, for example, deals with attempts to fit emotions and emotional expressions to social and contextual demands. In general, mood regulation can be perceived as part of the individual's general self-regulation, as one self-regulatory goal among others (Larsen, 2000b).

Mood regulation is realized through various regulatory strategies. There are a huge number of different ways to regulate mood. For instance, Parkinson et al. (1996) reported identification of over 200 different regulatory strategies. The most typical way of categorizing mood-regulatory strategies is to divide them into *behavioral strategies*, like doing something pleasant, and *cognitive strategies*, like reinterpreting the situation or looking on the bright side. Listening to music has been considered as a behavioral strategy (Parkinson et al., 1996; Parkinson & Totterdell, 1999).

2.4 Mood regulation by music

Music provides one means for mood regulation, and studies exploring several ways to regulate moods have identified music listening as an effective regulatory strategy (Gallup & Castelli, 1989; Parker & Brown, 1982; Rippere, 1977; Silk, 2003; Thayer, Newman & McClain, 1994). For example, Thayer et al. (1994) explored a variety of different regulatory strategies and found that listening to music was self-rated as second in success at changing a bad mood, raising energy, and reducing tension. Heasley (1995) proposed that music is used in general self-regulation to regulate cognition, arousal, and mood states.

Furthermore, music researchers have considered mood regulation to have a central role in musical behavior. A variety of studies have explored different reasons and motivations for engagement in musical activities in everyday life, and have found mood regulation be among the most essential reasons (Arnett, 1995; DeNora, 1999; Gantz, Gartenberg, Pearson & Shiller, 1978; Juslin & Laukka, 2004; Laiho, 2004a; 2004b; Larson, 1995; Melton & Galacian, 1987; North, Hargreaves, & O'Neill, 2000; Roe, 1985; Rosenbaum & Prinsky, 1978; Sloboda & O'Neill, 2001; Stratton & Zalanowski, 2003; Wells, 1990). For instance, Wells (1990) reported that 85% of women and 74% of men answered "Yes" to the question: "Do you ever use music to change your mood?"

Most studies have focused on adolescents and young adults, but music is known to be used for mood regulation across the whole life span, in preadolescence (Ashley & Durbin, 2006), in adulthood (Carlton, 2006; DeNora, 1999; Greasley & Lamont, 2006), and in old age (Hays & Minichiello, 2005). Music even seems to affect the emotional experience of children (Ziv & Goshen, 2006). Most research has focused on listening, but mood-related motivations are also shown to have a central role in active musical behaviors like singing

(Louhivuori, 2006; Unwin, Kenny, & Davis, 2002), playing (Kosonen, 2001), and performing (Persson, Pratt, & Robson, 1996).

There are some studies which have shown that music is used for mood regulation in various environments, for example in different social contexts (Ziv, 2004; Juslin & Laukka, 2004), in the workplace (Beronius Haake, 2006; Lesiuk, 2005; Oldham, Cummings, Mischel, Schmidtke, & Zhou, 1995), or in sports settings (Hewston, Lane, Karageorghis, & Nevill, 2005; Stevens & Lane, 2001). In addition, a whole different line of research has demonstrated that music can be used for mood regulation for various health-promoting or therapeutic purposes, for example in hospital settings for reducing pain, stress, and anxiety (Kenny & Faunce, 2004; MacDonald, 2000; Pelletier, 2004), or even in everyday life settings in line with the goals of community music therapy (Batt-Rawden, DeNora, & Ruud, 2005; Batt-Rawden, 2006). Applications of music's power to induce changes in moods range from mood induction procedures in research (Västfjäll, 2002) to attempts to manipulate consumers (North & Hargreaves, 1997).

The utilization of music for regulating moods is undeniable, and demonstrated in a substantial amount of research. Far fewer studies have tried to explore the nature of music-related mood regulation or to identify various regulatory processes. Some separate issues, however, have come up in previous studies. Music is often mentioned simply as an atmosphere-creation tool (Lincoln, 2005; Roe, 1985). Music seems to evoke positive emotions, and mood improvement, "lifting spirits", and feeling better are recurring themes (Beronius Haake, 2006; Gabrielsson & Lindstöm Wik, 2003; Hakanen, 1995; Juslin & Laukka, 2004; Lull, 1987; Sloboda & O'Neill, 2001; Wells, 1990; Wells & Hakanen, 1991). On the other hand, music also seems to help in managing negative moods in several ways. Researchers have proposed that music may serve as a kind of self-therapy, and may help people to identify feelings, work through conflicts, and regain control over psychic processes (Behne, 1997; DeNora, 1999; Gabrielsson & Lindström Wik, 2003; Laiho, 2002; Larson, 1995; Lehtonen, 1986; 1993; Ruud, 1997; Sloboda, 1992; Small, 1998: 160-171). Music is also considered to help tension relief and cathartic release of negative emotions (Schwartz & Fouts, 2003; Lacourse, Claes, & Villeneuve, 2001; Ruud, 1997; Sloboda & O'Neill, 2001; Sloboda, 1992). Pleasant musical activities may help to distance thoughts and feelings from personal burdens (Behne, 1997; Christenson, DeBenedittis & Lindlof, 1985; Christenson & Roberts, 1998: 203; Lull, 1987; Schwartz & Fouts, 2003; Sloboda, 1992), and pleasures of musical experiences may serve as organizers of self, and produce a sense of well-being, stability, wholeness, and purpose in life (Larson, 1995; Ruud, 1997).

Some studies have also attempted to categorize mood-related uses of music. Wells and Hakanen (1991) found that the most-used mood-regulatory uses of music were "get me pumped up", "strengthen my mood", and "lift my spirits", which were all related to mood improvement. Sloboda (1992) reported that two central processes emerged from valued emotional experiences: on one hand, music worked as a change agent modifying mood state and providing

new insights, while on the other hand music provided access to already existing emotions through intensification and release. Behne (1997) studied the use of music in different feeling states and found that, when feeling happy, adolescents chose happy music, but when feeling angry or sad, they vented the feeling through aggressive music, searched for comfort by maintaining their negative mood with melancholic music, or listened to sad and emotional music to get rid of the negative mood.

Even though the use of music in emotional management is widely acknowledged and some regulatory strategies have been identified, there is still a serious lack of conceptual understanding of the underlying psychological processes involved. For example, the general theories of mood regulation have received little attention in music research. One endeavor for theorizing the emotional use of music is Zillmann's (1988a; 1988b) mood management theory, which discusses the uses of all media. It is based on the hedonistic proposition, and argues that individuals arrange stimulus conditions to minimize bad moods and maximize good moods. The model also proposes that the preference for arousal levels of the stimulus serves excitatory homeostasis. Attempts to modify mood to fit the situation have also later been incorporated into the theory (Knobloch, 2003).

2.5 Focusing on adolescents

The current study focused on adolescents, to whom music seems to be of particular importance. Adolescents consume music enormously, they consider music an important part of their life (Christenson, DeBenedittis, & Lindlof 1985; Christenson & Roberts, 1998; North et al., 2000; Zillmann & Gan, 1997), and most of the *strong experiences of music* (SEM) occur in adolescence and early adulthood (Gabrielsson & Lindstöm Wik, 2003). In addition, experimental studies have shown that music decreases arousal due to stress especially in musicians, females, and adolescents (Pelletier, 2004). Christenson and Roberts (1998) have even argued that perhaps the clearest marker of adolescence is a passion for popular music.

Youth is a transitional period with many developmental challenges. One of the major tasks in adolescence is the reconstruction of the conception of self and establishment of adult identity. Puzzling over different aspects of changes in self such as body image, sexuality, future occupation, values, and ideologies is typical for this period of life. Adolescents also face substantial changes in their close relationships, as they separate from their parents and form new social contacts, peer groups, and sexual relationships. This creates a demand to balance the conflicting needs of belonging and independence. Adolescents also need to find balance between their personal and environmental demands and resources. The process of becoming independent includes learning self-regulation, and gaining emotional autonomy and control over one's own life. (Aaltonen, Ojanen, Vihunen & Vilén, 1999; Csikszentmihalyi & Larson, 1984;

Erikson, 1968; Jarasto & Sinervo, 1999; Larson, 1995; Shaffer, 1996; Vuorinen 1990; 1998.)

Even though adolescents in general cope very well with the changes during their period of transition, the developmental challenges may cause emotional unrest and increased demands for mood regulation (Halle, 2003). At the same time, mood-regulatory skills are only just developing. Therefore, possible resources to manage challenges would seem to be of great importance. Several researchers have in fact proposed that music also functions as a means to work through various developmental tasks and related emotional experiences (Larson, Kubey, & Colletti, 1989; Larson, 1995; Arnett, 1995; Lull, 1987; Schwartz & Fouts, 2003).

It has been shown that even very young adolescents know how to use music for mood regulation (Ashley & Durbin, 2006; Behne, 1997), but age differences in adolescents' mood-regulatory uses of music have not been thoroughly investigated. However, research on adolescents' coping abilities in general has demonstrated that the use of different coping strategies increases with age, and age 15 is considered as a turning point in the use of more efficacious coping strategies (Seiffge-Krenke, 1995, 220-222; Mullis & Chapman, 2000).

Adolescence is an important period for studying the mood-regulatory use of music due to the associated heightened love for music, and heightened demands for coping. It is also a period which lays foundations for the individuals' self-regulatory abilities and emotional skills for later life. Exploration of the use of music for different psychological purposes at this critical time of life may also be important for understanding an individual's psychological well-being and adjustment in their future.

3 AIMS

The interconnectedness of music and subjective emotional experience is well acknowledged, but there is a serious need for better theoretical understanding of the underlying psychological processes. The purpose of the present work was to rise to the challenge of theory development, and deepen the theoretical and conceptual understanding of the emotional functions of music. The study focused on identifying the personal goals directing engagement in music, and exploring the nature of the mechanisms by which they were realized through musical activities. The underlying motivation was to increase understanding of the emotional and psychological functionality and meaningfulness of music in the context of everyday life.

The present dissertation research was a continuous process. It consisted of three sub-studies, which proceeded from a broader exploration of the central psychological functions of music in adolescence toward a more specific understanding of the mood-regulatory processes. The background interest for increasing conceptual understanding of the psychological goals and processes was present at the beginning, but the research questions were also constructed, adjusted, and specified as the process advanced. The main research questions of each study are presented in Figure 1.

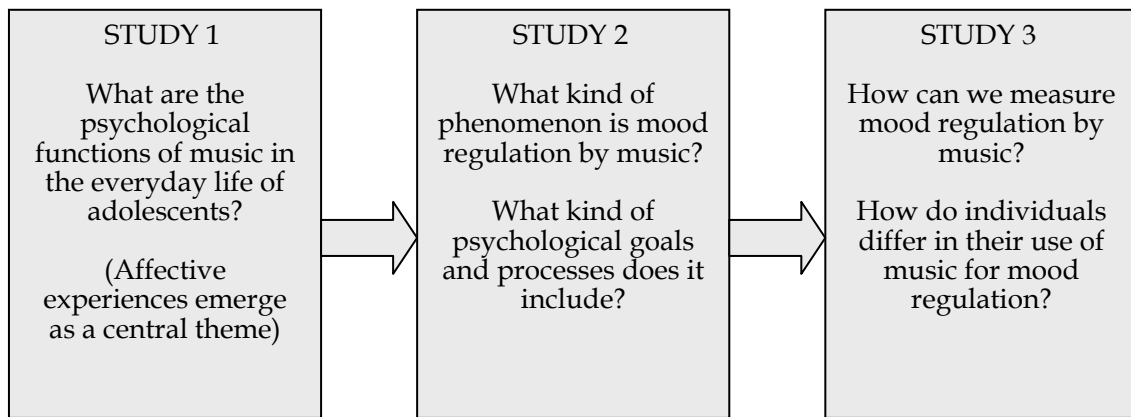


FIGURE 1 The main research questions in the sub-studies.

The first study aimed at clarifying the central personal goals for engaging in music in adolescence from the perspective of adolescent psychosocial development and personal psychological needs. Emotion-related goals emerged as the most salient function, which led to a focus on emotional processes. Consequently, mood regulation, a central psychological process related to emotions, was chosen as the main theoretical framework for the research. The purpose of the second study was to conceptualize the phenomenon of using music in mood regulation. Inductive theory development was undertaken in a bid to clarify the nature of mood regulation, and to identify the different mood-regulatory goals and strategies. The third study focused on measuring the use of music in mood regulation. The aims were to test the constructed theoretical understanding of the phenomenon, to develop a theory-based scale for measuring it, and to survey how individuals differ in their uses of mood regulation by music. Differences in the mood-regulatory use of music were studied in relation to age and gender, the musical background and preferences of the adolescents, different musical activities, and the adolescents' general mood regulation abilities.

4 STUDIES

The current research process consisted of three sub-studies. To construct a comprehensive understanding, both qualitative and quantitative methods were utilized. The aims, methods, and results of each study are summarized below. The studies are described in more detail in the original publications. The first study is presented in paper I, the second study is described in papers II and III, and the third study is presented in papers IV and V.

4.1 Study 1. Categorizing the psychological meanings of music

The starting point for the present work was to increase knowledge about the psychological meaningfulness of music in adolescence, and the first study aimed at exploring the functions of music from the perspective of adolescent psychosocial development. The purpose was to provide theoretical clarification about the goals and motives that direct and give meaning to musical activities in everyday life; to provide a psychological framework for understanding the uses of music.

The study was a meta-analysis of previous literature from several disciplines. It examined both empirical and theoretical studies concerning adolescents and the meanings of music in everyday life. Since the theoretical framework of the study was the psychosocial development of adolescence, the studies were reviewed from that perspective. Many studies that were reviewed discussed all possible reasons for engaging in music, and did not concentrate only on psychological functioning. However, several psychologically important themes seemed to be recurrently emphasized in the results of the studies. In the analysis, these themes were grouped under more general categories, and a theoretical categorization of the most central themes emerged.

The psychological functions of music in adolescence were divided into four categories: *identity*, *agency*, *interpersonal relationships*, and *emotional field*.

One of the major tasks in adolescence is the reconstruction of the conception of self and establishment of adult *identity*. Music served as an emotional framework for the interpretative activity of composing constructs related to self. It promoted self-exploration and self-knowledge, and strengthened the existing conception of self. The concept of *agency* was used to describe experiences of control, competency, and self-esteem. Music was a way of controlling the environment, and it was an activity usually under the control of teenagers themselves. Music could also help control emotions and inner impulses. It provided experiences of capability, learning, mastering, achieving, and succeeding, which strengthened the adolescents' self-esteem. The category of *interpersonal relationships* included two opposing needs: the need for belonging, and the need for independence and privacy. Adolescents need to separate from their parents while their social environment broadens towards new social contacts. Music was able to symbolize both connections and boundaries between people. Music served as a unifying power providing collective emotional experiences and enhancing social communication and peer group identification. On the other hand, personal musical preferences and activities helped to renegotiate the relationship with parents and seek independence. Music was also able to evoke *emotional experiences*. It helped the adolescents to cope with negative emotions. It enhanced self-reflective mental work of identifying feelings, clarifying thoughts, and working through conflicts, and enabled safe and acceptable expression of difficult, violent or disapproved thoughts and feelings. Music was used as a distraction from current situations, worries, schoolwork, and daily routines. However, adolescents also frequently engaged in musical activities simply for pleasure, enjoyment, and new experiences.

The four categories of the model represent the main areas in which music is able to support psychosocial development. The categorization provided a broad theoretical framework for studying the role and meaning of music in adolescence in relation to psychological functioning, development and well-being. Different emotion-related experiences and meanings turned out to be the most common theme in the review. In an exploratory study by Sloboda, O'Neill and Ivaldi (2000), for example, informants wrote in an open-ended fashion about their reasons for engaging in music, and practically all functions were somehow related to emotions. The centrality of emotional meanings, and the identification of various mood-regulatory uses of music in the review motivated the author to channel the work into exploring the mood-regulatory processes in more detail.

4.2 Study 2: Conceptualizing mood regulation by music

Study 1 had demonstrated the prevalence of the mood-regulatory function of music, but there seemed to be a serious lack of theoretical understanding of the underlying psychological processes. The purpose of the second study was to

improve this understanding and provide conceptual clarification of the phenomenon. The study focused on exploring the different mood-regulatory goals and strategies related to adolescents' everyday life musical activities.

Exploration of a complex and conceptually vague phenomenon required an inductive approach. The data was gathered from eight 14-18-year-old adolescents through group interviews and follow-up forms. Two different data collection methods were used to ensure validity through triangulation, and to best access the richness and diversity of the subjective experiences. Interviews dealt with musical activities, situations, tastes, emotional experiences, mood-regulation issues, and motivational factors. The nature of the discussions was non-directive, and the atmosphere was open and heart-to-heart. The follow-up forms were completed each time the adolescents engaged in a musical activity during the week between the interview sessions. The forms consisted of three parts: musical situation, affective experience, and reflection. A total of 120 forms were returned. Grounded theory was chosen to be the analysis method, since it is specifically designed for inductive theory construction, and aims at creating an understanding which is simultaneously highly abstract but profoundly grounded in the empirical data (Charmaz, 2003a; 2003b). The Hyper Research analysis program was utilized for managing the substantial amount of data. A more and more analytic picture of the phenomenon was constructed piecemeal on the grounds of the data through line-by-line, selective, and axial coding, comparing, and memo-writing.

The analysis resulted in a theoretical model of how adolescents use music as a means to achieve their mood-regulatory goals. Mood-regulatory uses of music were usually not consciously intentional, but still strongly based on various mood-related needs that stem, for instance, from the current mood. All kinds of musical activities were employed, but to be able to realize the regulatory goals, musical activity needed to be voluntary and somehow fit the current mood state and energy level. The data were mostly about regulating subjective feeling experiences, and music was able to regulate at least three elements of the experience: valence, intensity, and clarity. In addition to feeling experiences, music also evoked physical reactions and provided a means for emotional expression.

Two main goals and seven sub-goals for mood regulation by music emerged from the analysis. The sub-goals served as regulatory strategies for reaching the main goals. One of the main goals was the desire to feel good or better, and was labeled *mood improvement*. The other main goal was the need for having self-control over one's own feelings, and was labeled *mood control*. The seven regulatory strategies were labeled *entertainment*, *revival*, *strong sensation*, *diversion*, *discharge*, *mental work*, and *solace*. Entertainment is about creating a nice atmosphere and a happy feeling in order to maintain or enhance current positive mood. Revival represents personal renewal: relaxing and getting new energy when feeling stressed or tired. Strong sensation is about searching for intense emotional experiences. Diversion means forgetting unwanted thoughts and feelings with the help of pleasant music. Discharge is about emotional

disclosure, releasing anger or sadness through music that expresses these emotions. Mental work includes using music as a framework for mental contemplation and reappraisal of emotional preoccupations. Solace is about searching for feelings of being accepted and understood by music when feeling sad or troubled.

The strength of qualitative research lies in the ability to find relationships, processes, and overall impressions, and the study succeeded in providing a theoretical clarification of the processes of how music-related mood regulation occurs. The processes identified in the current study share considerable similarities with the goals and strategies reported in general mood regulation research and the mood-related uses of music reported in music research. Yet, the model provided new specification and theoretical cohesion. Conceptualization of the central mood-regulatory processes provided foundations for further explorations of possible contextual and individual differences in these processes. Indeed, the current research project continued with a survey study, which aimed to translate the mood-regulatory strategies into a quantifiable form.

4.3 Study 3: Measuring mood regulation by music

The third study aimed at measuring individual differences in adolescent's use of music for mood regulation. A valid scale for assessing the use of music in mood regulation had to be developed. Thus, in the third study, the previous study's theoretical conceptualization of mood regulation by music was converted into a quantifiable form. The newly developed scale was then used for measuring how differences in mood regulation by music would be related to differences in age, gender, musical background, and abilities of general mood regulation. Based on earlier research, it was hypothesized that girls would use music for mood regulation more than boys, and that the amount of regulation would increase with age. Greater use of music in mood regulation was expected to correlate with a more active musical background. In addition, greater use of music in mood regulation was expected to be moderately related to better abilities of mood regulation in general.

The scale for measuring mood regulation by music was developed based on the seven regulatory strategies defined in the previous work. Seven items were formulated to represent each strategy, so the original version of the scale consisted of 49 items. The interview data, gathered in the theory development study, was utilized as focus group material to reach the adolescents' expressions and wordings. The functionality and intelligibility of the items was discussed with other researchers, evaluated by non-professional evaluators, and tested in a pilot study (N=129). The scale was labeled "*Music in Mood Regulation*" (MMR).

The final questionnaire was conducted at schools. In order to obtain a representative sample of Finnish schools, a stratified random sampling method

was used. All 25 selected schools agreed to participate. 2000 questionnaire forms were sent to the schools. The response rate was 76%, and the final survey sample consisted of 1515 adolescents, 652 boys and 820 girls. The pupils were from three different school levels, and were grouped into three age groups accordingly: 10-13-year-olds, 13-15-year-olds, and 15-20-year-olds. Mean age of the whole sample was 15.01 years. In addition to the MMR scale, the survey form included four measures of general mood regulation abilities, and questions about musical background, activities and preferences of the adolescents.

The measurement model of MMR was tested with structural equation modeling using MPlus software version 3.12 (Muthén & Muthén, 1998-2005). On the basis of prior theory, the model included one big second-order factor, "the use of music in mood regulation", which consisted of seven sub-factors representing the seven regulatory strategies. A series of confirmatory factor analyses were conducted on the data. The fits of the measurement models of each strategy were first tested separately before testing the fit of the whole second-order model. Nine items were removed based on the analyses. After their removal, the fits of the measurement models of each strategy and the whole MMR were relatively acceptable. The final measure thus consisted of 40 items assessing the seven regulatory strategies.

To evaluate the conceptual validity of MMR, it was compared to measures of general mood regulation abilities. The internal consistency reliabilities of MMR, its subscales, and the scales for measuring general mood regulation abilities in the current data were all acceptable. MMR correlated with several mood-regulatory abilities, most strongly with a tendency to focus attention on one's feelings and the ability to reappraise one's emotional experiences in a more positive way. MMR's positive correlations with scales assessing adaptive regulation suggests that mood regulation by music might be related to adaptive functioning. However, all correlations were relatively low and established music-related mood regulation as a distinct construct.

MMR was used to explore individual differences in the mood-regulatory use of music. The most-used regulatory strategies were entertainment, revival, and strong sensation. As expected, in all age groups, girls used music for mood regulation significantly more than boys. Also, older adolescents used music for mood regulation more than younger adolescents, which was in accordance with previous research demonstrating that different coping strategies are acquired with age (Seiffge-Krenke, 1995, 220-222; Mullis & Chapman, 2000).

The use of music in mood regulation was also related to musical background. Greater amount of daily listening, more active background in playing or singing, writing songs, having music played in the family, and the subjective experience of music being important in one's life were all positively correlated with a greater use of music in mood regulation. Listening, in particular, proved to be important, and 62% of the respondents chose "listening alone" to be the most important musical activity for managing mood. It seems that adolescents who actively engage in music also use music for mood

regulation more than their peers. The importance of listening, however, suggests that music can also be an important means for mood regulation for those adolescents who just listen to music. In addition, listening was also the most frequent means for mood regulation for adolescents who did play an instrument. Solitary listening may be the best way to reach private emotional experiences. The importance of solitary listening for emotional management has also been demonstrated in previous research (Larson, 1995; Juslin & Laukka, 2004).

Greater use of music in mood regulation was positively correlated with the versatility of musical preference. This supports the notion that mood regulation is about an ability to employ different musical styles for different emotional needs (Schwartz & Fouts, 2003). The use of music in mood regulation also correlated with preferences for many separate musical genres, the strongest correlations being between MMR and a preference for rock music and heavy metal music. The strong intensity, volume, and “roughness” of these styles may somehow reflect the emotional experience of youth, and provide a means for coping with emotional experiences related to this challenging developmental period.

The study succeeded in developing, testing, and validating a pioneering measure for assessing the use of music for mood regulation. The strength of MMR is that it is firmly based on a theoretical model. Mood regulation by music was established as a specific form of regulation within general mood regulation, and several individual differences in mood regulation by music could also already be demonstrated.

5 DISCUSSION

An elaborate understanding of the psychological meanings of music is possible only through systematic exploration of the underlying psychological processes. The current work was a stepwise process towards a more detailed understanding of the music-related mood-regulatory mechanisms and their realization. The general findings, limitations, and implications of the current project are discussed below.

5.1 Conceptualization and measurement of psychological processes

The main contribution of the current research is related to theoretical and conceptual development. The first study provided a theoretical clarification of the central functions of music from the perspective of adolescent psychosocial development. Study 2 conceptualized one psychological function, mood regulation by music, in more detail, and provided a theoretical model of the regulatory processes. In addition to theory development, the current work also contributed to the measurement of a complex psychological phenomenon, as study 3 focused on developing a measurement tool for assessing music-related mood regulation.

Development of theoretical propositions and measurement instruments that cover essential aspects of the phenomenon are fundamental for further developments in research. This is probably especially important in emerging fields like music and emotion. Theory development related to the psychological processes underlying musical behavior provides an opportunity for a more general interpretation of various empirical findings, and a more abstract understanding of the complex mood-related experiences of everyday life. Development of a theory-based measure will hopefully promote further research in the field. These developments also benefit the accumulation and comparability of results.

Despite the importance of theory development, it must be noted that compression of a subjective experience into a theory is always a process of reduction and simplification, which includes the hazard of losing sight of the diversity of the phenomenon. The presented model of mood regulation acknowledges that the mood-regulatory goals and strategies are dynamically created, selected, and realized in a complex interaction between the personal and contextual needs and various musical activities. Still, the theory is pronouncedly focused on only one aspect, namely the individual, instead of focusing on the context or the music. The categorization of psychological functions in study 1 also concentrates specifically on the goals of the individual. It is important to remember that this research must not take undue pride in providing comprehensive theorizing, since it only encompasses one element of the emotional reactions to music, namely the subjective, especially mood-regulatory, goals and meanings of the individual, leaving out most of the social, or the physiological.

Open questions also remain with regard to the psychological goals and processes described in the current project. The categorization of study 1 is broad, and the current project only focused on one of its categories more specifically. Also, the model is merely a grouping of themes, not a theory of the connections between them. The current project did not address the questions of how mood-regulatory processes are related to other affective experiences, or how they, in turn, are related to other psychological goals such as experiences of agency or belonging. Also, the connections of the mood-regulatory processes to various personality characteristics were left unexplored. The complex connections between mood-regulatory goals and other psychological goals related to musical activities provide challenges for future work. The current project clarified some essential structures related to the affective experiences of music, being one step towards an understanding which is simultaneously detailed and comprehensive.

5.2 Studying subjective experiences

The present work focused on the subjective feeling component of moods, and the personal psychological meanings of music. The studies relied on self-report data.

Subjective experiences are difficult to objectively interpret, measure, and compare. Mood regulation itself includes processes which are partly unconscious (Gross, 1998), which makes the task even harder. Since the current research was based on subjective reports of the individuals about their experiences, it was only able to measure the subjective experience, not the "objective truth", about what happens in mood regulation. The same problem exists in all measurement of psychological concepts when the method is based on subjective reports. It is probable that, in study 2, the adolescents were not able to consciously report on all the mood-regulatory processes that actually

took place in their life. The analysis, however, was designed for interpretation of tacit meanings.

The analytic approach in constructing the model of mood regulation was grounded theory. Inside the grounded theory, the approach of the current study mostly resembled the constructivist approach proposed by Charmaz (2003a; 2003b). Constructivist grounded theory aims at an interpretative understanding of the subjects' meanings. It assumes the relativism of multiple social realities and recognizes the mutual creation of knowledge by the viewer and the viewed. The analysis was a subtle process of aiming towards abstract understanding of the meaning of the adolescents' comments on issues that were difficult to verbalize. The resultant model was, thus, a construction of the subjects' portrayals of their experiences and the researcher's interpretations of them.

Problems of self-report data also appear with regard to the survey, and possible divergent interpretations of the items. Of course, every attempt was made to eliminate ambiguities when designing the items, and the interview data was used as focus group material for reaching the adolescents' own wordings. Still, it is possible that the results are colored and biased with subjective interpretations and motivations. For instance, the cognitive development and increased ability of abstract comprehension may help older adolescents to be more conscious about their regulatory uses of music, which, in turn, may be reflected in the greater use of music in mood regulation by older adolescents. The temptation for giving socially acceptable or favorable responses when filling in the survey form in a school class full of peers should also be taken into consideration. For example, the greater amount of mood regulation by girls than boys may partly be due to the girls' greater willingness to report their emotional experiences.

Both interviews and surveys also rely on retrospective data, which is vulnerable to memory loss. That was not, however, necessarily a problem in the current study. A deliberate concentration on those issues that were memorized actually served the purpose of tracking significant personal meanings and experiences.

Despite the problems related to studying subjective experiences, scientific work on them is essential for the research of music and emotion. In fact, the subjective experience of the individual is a major factor, a central element of any human behavior. The importance of studying subjective experiences is supported by many studies showing that the functions of music in people's lives are strongly related to personal choices and subjective meanings (Batt-Rawden, DeNora, & Ruud, 2005; MacDonald, 2000; North, Hargreaves, & Hargreaves, 2004; Sloboda, O'Neill, & Ivaldi, 2000).

5.3 Characteristics of music-related mood regulation

The present work leaned theoretically toward the perspectives of general self-regulation and mood regulation research. However, it had a special focus on music as the means for the regulation. The study demonstrated several similarities between music-related mood-regulation and general mood regulation, which are considered in more detail in the discussion of paper III. However, mood regulation by music also had various distinctive characteristics.

Mood regulation by music includes both behavioral and cognitive elements

Mood-regulatory strategies are typically divided into behavioral and cognitive strategies, and listening to music has often been considered as a behavioral strategy (Parkinson et al., 1996). The results of the present work, however, suggest that music-related mood regulation has features of both behavioral and cognitive strategies. Various musical activities are indeed behavioral actions, and mood regulation is realized through various behaviors like listening, playing, singing or dancing. However, music may also be considered as a framework which promotes the cognitive processing of emotional experiences. These processes are reflected, for example, in the strategy of mental work, which is about the use of music as a symbolic space for working through conflicting issues, and reappraising emotional experiences. Interestingly, when compared to general abilities of mood regulation in study 3, the Music in Mood Regulation (MMR) scale correlated most strongly with the *reappraisal* scale, which assesses the ability to cognitively reinterpret one's experiences in a more positive way.

Mood regulation by music modulates various components of moods

The current study discussed mood regulation at the level of regulatory goals and processes. Instead of studying changes related to particular emotions or categories of them, the work concentrated on regulatory patterns and various general dimensions and components of moods.

The current study focused especially on the subjective feeling component of moods. Music was found to be able to regulate at least three elements of the feeling experience: it almost always improved the adolescents' mood and made them feel better (*valence*), it often intensified the existing affective experience and focused the adolescents' attention into their inner feelings (*attention and intensity*), and could sometimes help the adolescents increase their understanding over their experience (*clarity*).

Even though study 2 focused on understanding the regulatory processes at the level of subjective experiences, many implications for music's influence on physiological processes also came up in the discussions. In fact, the physiological component seemed to be an inseparable part of the music-related

mood regulation. For example, the feeling experience of lifting spirits and the modulation of arousal by getting energy from music were often blended as a single regulatory act. However, the role of physiological concomitants of affective experiences, despite their salience, received little notice in the current study due to the pronounced focus on the feeling component. Further exploration of the relationship between mood-related and arousal-related goals and processes would be an interesting complement to the model.

With regard to the components of the emotion generation process, music seemed to have an effect at several points. Music listening could be *situation modification* through atmosphere creation. Music could also promote *attention deployment* by focusing attention on thoughts and feelings (e.g. the strategies of strong sensation or mental work) or directing attention away from unwanted thoughts and feelings (e.g. the strategy of discharge). The strategies of mental work and solace can be seen as attempts to *change appraisals* of experiences. The strategy of discharge reflects the use of music for *emotional expression*. Despite these corresponding features, the positioning of the seven music-related regulatory strategies to match the various components of emotional process is far from clear, and may not even be purposeful. After all, the strategies represent the regulation of free-floating mood states rather than specific process-like emotional reactions. However, it can be said that music seems to have an impact on moods and emotions at a variety of levels. This may have some explanatory value for understanding music's emotional power.

Mood regulation by music is related to positive experiences

The concept of mood regulation includes the regulation of both positive and negative moods. However, research on mood and emotion regulation has mainly focused on down-regulation of negative moods. Despite this, some recent studies have found that positive emotions have important consequences for health and well-being over and above negative emotions (Gable, Reis, Impett, & Asher, 2004). Positive emotions are proposed to broaden the individual's thought-action repertoire and build resources (Fredrickson, 2001), and to enhance well-being and regulate and mitigate the ill-effects of negative feelings on self-control (Izard, 2002).

The present work indicates that music-related mood regulation is intrinsically related to enjoyment and positive experiences. The adolescents often engaged in music just for maintaining or enhancing an already existing positive mood, and the most-used regulatory strategies were the ones related to the enhancement of positive experiences. As noted before, the importance of positive emotions to musical experiences is also demonstrated in a variety of previous research. Therefore, it seems essential to move beyond traditional conceptions of focusing on dampening negative moods. The regulatory strategies presented in the current study don't limit the concept of mood regulation to regulating negative moods, but also take the positive emotional experiences into account. Strategies of strong sensation, entertainment, and revival provide a possibility to consider positive emotional experiences as

actions of mood regulation. These three strategies have in common the employment of music for creating resources for well-being rather than just preserving well-being in times of trouble.

The line between the processes of dampening negative moods and enhancing positive ones, however, is faint. Many of the regulatory strategies include characteristics of both kinds of processes. Diversion, for example, is a process of dealing with negative feelings by focusing on pleasurable musical activities. In the end, all the strategies ultimately aim towards the common ends of mood improvement and emotional self-control. However, paying adequate attention also to the role of positive experiences is essential for a comprehensive understanding of music as a resource for self-regulation and psychological well-being.

Mood regulation by music includes a great variety of goals and means

The current research demonstrated that music could be used to realize a variety of different mood-regulatory strategies. One musical activity could even simultaneously satisfy several different goals. For instance, listening to energetic party music could simultaneously be a means for distracting oneself from worries or schoolwork, creating an entertaining atmosphere for a party ahead, and even gaining strong sensations. The abstract and symbolic nature of music makes it easy to use the same music for the satisfaction of varying needs in different situations. Indeed, one criterion for good music, according to the adolescents, was that the music would fit several different moods and situations. Shah and Kruglanski (2000) argue that individuals often choose means that simultaneously bring about the satisfaction of as many goals as possible. The power of music in mood regulation may partly be founded on its versatility in satisfying multiple goals

Music also provides a multi-faceted means of regulation. It offers a variety of different styles to listen to and a variety of different activities to engage in, from listening to composing. The present study demonstrated the importance of listening as a means for mood regulation, which is a crucial indication of music's ability to serve as a means for mood regulation for those who don't play an instrument. Due to recent technological developments, music is also available for listening almost everywhere, and at all times, which may partly contribute to the self-regulatory use of music listening. Adolescents often listen to music which has lyrics, so the music offers not only sounds but also words as a material for mood regulation. Lyrics were indeed mentioned as an important aspect especially in relation to mental work and solace. However, the current study did not address the relative significance of lyrics compared to musical features in mood regulation, and the adolescents themselves also seemed to experience songs as entities of both features.

5.4 Generalization and applicability of the results

The current work was based on three different kinds of data collection processes: meta-analysis of literature, theory development based on interviews, and statistical analysis of survey data. Together, the three approaches comprise a fairly comprehensive understanding of music-related mood regulation in adolescence, but there is still a need for improvement and specification. The theoretical model outlined in study 2 is based on the experiences of only eight adolescents, so even though the qualitative data obtained was rich and plentiful, there is a need to replicate the results using other samples. A broader exploration and confirmation of this theoretical foundation would also advance further development of the MMR-scale. The theoretical categorization of study 1 could also benefit from empirical testing.

All three studies of the present work focused on understanding the psychological meaningfulness of music during a specific developmental period, adolescence. Could the results have implications beyond that age group? The categorization of study 1 is strongly related to the developmental tasks characteristic of adolescence, and must be understood in that theoretical context. However, issues related to personal identity, interpersonal relationships, feelings of agency and capability, and various emotional experiences are not meaningless to other age groups either, and are important to take into consideration if music's psychological meanings are discussed in relation to children, adults or older people.

The model of mood regulation by music may also prove to be applicable in other age groups. It would be reasonable to presume the main goals of mood regulation to be quite similar regardless of age, and the regulatory strategies may also include behaviors and processes employed in various age groups. However, the strategies are based on the experiences of the young, and do include processes that seem to fit especially well to this age period. Adolescents are higher in sensation seeking than other age groups (Zuckerman, Eysenck, & Eysenck, 1978), which may be reflected in the importance of strong sensations. Discharging and venting anger through aggressive music seems to be in accordance with the strong intensity and unrest of emotional experience in youth. The use of music in mental work may reflect contemplation about developmental concerns typical in adolescence, like the reconstruction of self-identity, values, and close relationships.

Furthermore, in general, there may be a stronger need for an additional medium of mood regulation in adolescence due to the incomplete acquisition of sophisticated regulatory strategies and the large number of developmental challenges which pose extra demands for coping and mood regulation. The music itself, as a typical feature of adolescent life, may also be an easily approachable medium especially for the young.

In addition to age, the results must also be interpreted within relevant social, environmental, and musical contexts. All studies focused on the use of

music in the context of everyday life. However, the attained understanding about the psychological goals and processes may prove to be useful also for implications in applied contexts, like educational or therapeutic settings. The range of musical contexts in the studies was wide. The interviews dealt with all kinds of musical activities from listening to writing songs, and the contexts varied from private listening in one's room to playing in a band with friends, or being at a music lesson in school. Also, the term *music* was predominantly used in the MMR-scale, instead of *listening* or *playing*, to give the responder the freedom to think about the musical activity that was most habitual to him or her. Thus, the model of mood regulation and MMR-scale are applicable to the investigation of all kinds of musical activities, from listening to playing. However, the limiting factor for a mood-regulatory musical activity was that it needed to be voluntary, and some regulatory strategies also seemed to occur just in privacy. The relevance of personal choice and intimacy is an important notion for possible applications of mood-regulatory uses of music in therapeutic or educational contexts. Lastly, it should be noted that the study was carried out within Finnish culture, which might have its own cultural characteristics.

6 CONCLUDING COMMENTS

The underlying motivation for the current research was to promote knowledge about music's emotional meaning, and the study succeeded in offering theoretical clarification of some relevant goals and processes. Firstly, it provided a categorization of the central functions of music from the perspective of adolescent psychosocial development, and demonstrated the centrality of mood-related goals. Secondly, the concept of mood regulation by music was defined through empirical exploration and identification of the regulatory goals and strategies. Thirdly, a survey measure for assessing the use of music in mood regulation was developed and several differences in mood regulation were demonstrated. Overall, the work increased understanding of music's psychological functionality in the context of adolescent psychosocial development, emotional experiences, and self-regulation.

The current project created not only answers but also new questions, and provided foundations and inspiration for further research. The use of music for mood regulation could be studied in various age groups, in relation to different personal factors, and in different contexts and cultures. Mood regulation by music may have significant implications for adjustment and well-being, and exploration of possible causal relationships is an important task for future work. More abstract theoretical questions arise from the relationship between mood-regulatory goals and other psychological goals related to music use. Also, exploration of the complex connections between emotional, cognitive, experiential, behavioral, biological, and neurophysiological components, provide challenges for the development of more comprehensive theories.

An interest in studying music and emotion has arisen in various related fields. Knowledge concerning the psychological processes related to the emotional use of music is essential for all disciplines interested in music and the needs of people. The need for the development of common theories, paradigms and measures to promote collaboration between disciplines is increasing, and the current research contributes to this dialogue by providing two theoretical frameworks and a pioneering measurement tool. The results may further research in music psychology, music sociology, music therapy, or music education, and also provide general psychology with fresh perspectives for

studying individuals' goal-oriented psychological functioning, affective experiences, coping, and self-regulation.

YHTEENVETO

Musiikki nuorten tunteiden säätelynä

Tutkimuksessa tarkasteltiin musiikin psykologisia merkityksiä nuorten psykososiaalisen kehityksen ja tunteiden säätelyn näkökulmasta. Musiikkipsykologian alalla on viime aikoina ollut kasvavaa kiinnostusta tunnekokemusten tutkimiseen, mutta teoreettinen ymmärrys tunnekokemuksiin liittyvistä mekanismeista on yhä vähäistä. Tutkimuksen keskeisenä tavoitteena olikin vahvistaa teoreettista ja käsitteellistä ymmärrystä musiikkiin liittyvien tunnekokemusten taustalla vaikuttavista psykologisista prosesseista. Tutkimus koostui kolmesta osatutkimuksesta, jotka etenivät laajemmasta psykologisten merkitysten tarkastelusta kohti yksityiskohtaisempaa selvitystä tunteiden säätelyn prosesseista.

Ensimmäinen tutkimus oli meta-analyttinen katsaus aikaisempaan tutkimuskirjallisuuteen. Meta-analyysin tuloksena syntyi teoreettinen ryhmittely musiikin psykologisista merkityksistä nuorten psykososiaalisen kehityksen näkökulmasta. Aiemmasta tutkimuskirjallisuudesta nousi neljä kategoriaa, joihin liittyvissä kysymyksissä musiikki saattoi edistää kehityksellisiä tavoitteita: *identiteetti, itsemäärääminen, ihmissuhteet, ja tunnekokemukset*. Kategorisointi tarjosi teoreettisen viitekehyksen musiikin psykologisten merkitysten tarkasteluun nuoruudessa, ja toi esiin tunteisiin liittyvien merkitysten keskeisyyden.

Toinen osatutkimus keskittyi määrittelemään musiikin avulla tehtävän tunteiden säätelyn käsitettä. Tutkimukseen osallistui 8 eri-ikäistä nuorta, ja aineisto kerättiin ryhmähaastattelujen ja seurantakaavakkeiden avulla. Analyttisena lähestymistapana oli grounded theory. Induktiivisen teorianmuodostuksen tuloksena syntyi teoreettinen malli siitä, miten nuoret käyttävät musiikkia tunteiden säätelyn välineenä. Mallissa kuvataan tunteiden säätelyn päämääriä ja strategioita, strategioiden valintaa edeltäviä tekijöitä, niiden toteuttamisessa käytettäviä musiikillisia toimintoja, ja säätelyn tuloksena esiintyviä mielialan muutoksia. Tunteiden säätelyn päämäärät jaettiin kahteen päätavoitteeseen, *mielialan paranemiseen* ja *mielialan hallintaan*, sekä seitsemään päätavoitteeseen edistävään tunteiden säätelyn strategiaan, *viihdykkeeseen, elpymiseen, elämyksiin, irtautumiseen, purkamiseen, mielikuvatyöskentelyyn ja lohtuun*.

Kolmas osatutkimus oli poikittaisaineistoon perustuva kyselytutkimus. Tutkimuksen tavoitteena oli testata edellisessä tutkimuksessa rakennettua teoreettista ymmärrystä musiikin avulla tehtävästä tunteiden säätelystä, kehittää kyselylomakemittari musiikin avulla tehtävän tunteiden säätelyn mittaamiseen ja tarkastella sen avulla tunteiden säätelyssä ilmeneviä ryhmäeroja. Tutkimukseen osallistui 1515 nuorta 25 koulusta eri puolilta Suomea. Musiikin avulla tehtävän tunteiden säätelyn mittari, MMR (*Music in Mood Regulation*), muotoiltiin tunteiden säätelyn strategioiden pohjalta, ja konfirmatoristen faktorianalyysien sarja kyselyaineistossa tuki sen mittamalla. Kyselyn tulokset osoittivat, että tytöt käyttävät musiikkia tunteiden säätelyyn poikia enemmän,

ja vanhemmat nuoret nuorempia enemmän. Musiikin avulla tehtävä tunteiden säätely oli yhteydessä myös musiikilliseen taustaan ja harrastuneisuuteen, musiikkimakuun, sekä nuorten yleisiin tunteidensäätelytaitoihin.

Kokonaisuutena tutkimus oli järjestelmällinen selvitys musiikin avulla tehtävään tunteiden säätelyyn liittyvistä psykologisista prosesseista nuorten arkielämässä. Se vahvisti ymmärrystämme musiikin psykologisesta merkityksellisyydestä osana nuorten psykososiaalista kehitystä, tunnekokemuksia ja psyykkistä itsesäätelyä.

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