### Health and social impact of culture

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59 p. + data on the basis of researches examined 13 p.

#### **Abstract**

This master's thesis concentrates on health and social impacts of culture. Main concepts of the thesis are: health, culture and social capital. Purpose of the research is to find out which are the health impacts of culture, how to measure those impacts and how could the methods used in health-measurement be improved.

There will be six researches analyzed in this master's thesis. Methodology used is content analysis of the secondary data, choosen among many scientific researches on the area of health and social impacts of arts and culture. Searching was carried through in databases of the Library of the University of Jyväskylä and in database *scholar google*. The main focus was set into researches, which are innovative and expanding the area of research about health and social impacts of culture.

On the basis of six researches examined in current master's thesis one may argue, that cultural participation contributes to the health on three main level: on personal, social and political level. Main conclusions of current master's thesis indicate to the relevancy of multidiciplinary research on the field of social impacts. Impacts on individual level proved, that health-impacts of arts and culture are measurable and could be considered as the source of information about individual's health. Impacts on society level are influenced by arts impacts on individual level and indicate to the connections between social capital, health and cultural participation. Impacts on political level indicate to the need of further research through which the concept of health could be elaborated through more specific information about life quality and well-being.

Considering different areas of interests on on the field of public policies of each abovementioned area, the cultural policy appears to be one of the main methods for society planning. Providing the understanding of deep essence of human well-being on personal and social level may wider access to cultural participation provide solutions for actual problems in society.

**Key words**: social impacts of culture, health-impacts of culture, cultural policy, social impacts of arts education.

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### Introduction

During last period the economic impact of culture has been widely discussed. Changes in post-industrial society are forming the structure of economy towards more intellectual capital related chain of production. Deeper reasons of the economic success, that culture makes possible may be found in theories about psychological impact of aesthetic experience. Art represents the world of creativity, it brings forth the beauty and positive side of life, it may help people to understand better their inner world, to find new ideas and solutions for problems, it may also deliberate people for pleasure and entertainment. Market's interest towards cultural policy is thereby understandable.

Cultural effects in economy give evidence about expanding role of culture also in other areas of society. Evaluation of cultural impacts is becoming part of public policies, contributing to the innovative and sustainable public planning. Current master's thesis concentrates on *social impacts of culture*, among which one of the most important is the *health impact of culture*. Central concepts of the current master's thesis are health, culture and social capital.

Which kind of health-related impacts does culture have on human being and how could the relation between different impacts be measured and analyzed, are issues of current master's thesis. Starting with definitions of the concepts like health, culture and social capital in chapter 2, the connections appeared in definitions will be formed into broader discussion in chapter 3. In the next chapter the material, methodology and research questions will be presented. Chapter 5 concentrates on six researches, where social impacts of culture are explored. In the section 5.1 the concept of health will be reveiwed on the basis of researches examined. Health as concept is defined in three researches, which bring forth direct health-impacts of arts and culture. Indirect social impacts of arts and culture, examined in three researches, are considered to be implicitly related to health. Section 5.2 focuses on research question number 1: What are the health -impacts of arts and culture? In the section 5.3 focuses on relation between different impacts measured and analyzed. In the last section the chapter 5, the suggestions by authors of researches analyzed will be presented. Last chapter of current master's thesis is

discussion on the basis of results of the analysis and two scientific articles concerning social impacts of arts. Articles reviewed are written by the experts of social sciences and published in The International Journal of Cultural Policy in 2002 and 2007.

There will be 6 researches examined in current master's thesis. Research-areas are: relationship between health and participation in cultural life (Konlaan 2001 papers I - V), adolescent's mood regulation by music (Saarikallio 2007), cultural activities in social and healthcare units (Liikanen 2003), impacts of live music and visual art in hospital (Staricoff 2003), comparative study on effects of singing lessons to amateurs and professionals (Grape et al. 2003) and extracurricular activities at school in middle childhood (Pulkkinen and Metsäpelto 2008).

Purpose in choosing the data has been to find possibly recent scientific information on the research area of health and social impacts of culture. Aim of current master's thesis is to understand both micro and macro level of arts impacts on health in sociocultural context, to analyze the secondary-data and to bring forth the suggestions, formed on the basis of results, represented by the authors of researches examined.

Impacts, examined in researches analyzed, appeared on three levels: on individual, social and political. Impacts on individual level proved, that health-impacts of arts and culture are measurable and could be considered as the source of information about individual's health. Impacts on society level show connections between social capital, health and cultural participation. Impacts on political level indicate to the need of further research through which the concept of health could be elaborated.

Conclusions of current master's thesis draw together the main results from the viewpoint of cultural policy that appears to be key-factor, providing tools for integration of the different policies in society. In the master's thesis the research questions are:

- 1) What are health and social impacts of culture?
- 2) How is the relation between different impacts measured and analyzed?
- 3) How to develop the current assessment methods and processes?

#### 2. CONCEPTS

### 2.1 Health

This chapter concentrates on health on the basis of some historical and contemporary definitions. Beginning with health-descriptions in Ancient Greek and in old Chinese medicine, the theory of balance and interaction by Hyyppä (2002) and description of health by Honari (1999) will be presented. After that the health-definition by The World Health Organisation and broader overview about main research-areas of contemporary medical sociology will be introduced. In this chapter the main questions are: how is health defined, how can health be measured and which are the main factors influencing health.

#### 2.1.1 How is health defined?

One of the oldest definitions of health derives from ancient times. Hygeia, the Greek Goddess of health, cleanliness and sanity in 7th century BC argued that health is natural order of things and a positive attribute to which men are entitled if they govern their lives wisely (Dubos 1987, 131). Certain connection between health and wisdom may be one of the key-factors when discussing health as *positive attribute* and *natural order of things*, expressed by Hygieia. Hereby one may suppose, that situations opposite to natural order of things (discorder) and negative attribute(s) are not relevant to health and might be avoided by those who are interested in staying healthy. Definition by Hygeia inspires to presume, that only those individuals, who govern their life wisely, are healthy or may experience natural order of things.

Precondition to health is thereby ability to govern own life, that in contemporary meaning may be understood as equivalent to self-control and self-regulation. Here one may ask, if resigned individual (or society), who is deprived from capacity to govern one's life, is unhealthy and if empowerment could help in this situation? Health-concept

from 7th century BC indicates to the connection between wisdom and health, also to the personal commitment and responsibility to excert one's physical, emotional and social capacity and to take care of one's health. Considering natural order of things, may order be viewed as objective conditions or well-organised society, whereas subjective conditions could be viewed as *nature*-oriented lifestyle, choosen by individual. Human being who has healthy lifestyle may be in difficulties in case his local environment is unhealthy by objective reasons. In turn: healthy objective conditions are not enough in case subjective attitude and presumptions are not health-oriented. Discussing about health-philosophy in ancient Greek, it has to be noted that Hygeia was daughter of Aesclepius, who was the God of Medicine. Hereby one may presume, that wisdomrelated conception of health became evident later than healing-related one, whereas need to cure disease was prior to perceived need to prevent disorder and keep healthy status. Dubos writes about never-ending oscillation between two different points in medicine: function of medicine is to discover and teach the natural laws which will ensure to man a healthy mind in healthy body whereas chief role of physician is to treat the disease, to restore health by correcting any imperfection caused by the accidents of birth or of life. (Dubos 1987, 131). Thereby one may argue, that concept of health is in continual formation and influenced by broader development-processes in society.

Chinese medicine <sup>1</sup> sees health as bidirectional (Body ↔ Mind). There is fundamentally no division between the body and mind in Chinese medicine. Psyche and soma are accorded equal status (Flaws&Lake 2001, 15). Health in Chinese meaning was balance between mind and body, attainable to everyone who has appropriate knowledge, how to keep one's mind and body in balance. Both Greek and Chinese definitions indicate to the importance of (pre)knowledge and certain type of behavior as determining factors for good health.

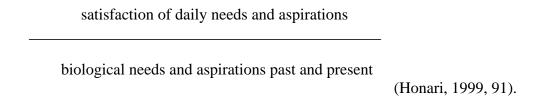
Healthy impact of balance is emphasized by Markku T.Hyyppä, who draws attention to the importance of interaction that leads to the preservation of the balance

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<sup>&</sup>lt;sup>1</sup> The early history of Chinese medicine dates back to 1523 – 1027 BCE in the Shang dynasty, where the medical treatment was administered by so called *wu*-shamans and mainly consisted of propitiating unhappy ancestors (Flaws and Lake 2001, 15).

inside of human being and in relations between people. Hyyppä refers to stoa-philosophy by Zenon, who was born in 336 BC in Cypros. Zenon taught that people must live ecologically, in balance with nature and with other people. Zenon claimed that human being does not live for himself, but for the others and that harmony can be achieved in sociability (Hyyppä 2002, 34). Importance of sociability is emphasized by Putnam. According to Putnam, have some studies documented the strong correlation between connectedness and health at the community level (Putnam 2000, 327). Social connections have profound links with psychological well-being, argues Putnam. (Putnam 2000, 334).

Honari sees health as the main resource for any type of development: conceptual, cultural, societal, environmental, educational, structural, health-illness care delivery, technical, economic, political or technological (Honari 1999, 22). Health of human being is explained by Honari as relation of needs and aspirations:



The World Health Organisation defines health in following: "A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." (World Health Organisation 1946, Konlaan 2001, 29). On the basis of this definition one may conclude, that health is well-being on three levels: physical, mental and social. Discussing health as wellbeing leads to broader discussions about *social health* in relation to good relations and mutual understanding between individuals and social groups. Here one may see the connection between personal health (feeling good) and social health (looking great) also a need of reflection – somebody has to see, how great one is: "Health is increasingly linked with *feeling good* and *looking great*, a notion of true *wellbeing* which rests on the idea of balance or harmony between body, soul, mind and emotion as well as satisfactory relationships with other people and society as a whole."(James and Gabe 1996, 43).

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Discussing health as well-being indicates to the variety of impacts on the area of healthy life. In order to explore the concept of health more precise, the main methods of measuring the health will be reviewed in the next section of this chapter.

#### 2.1.2 How can health be measured?

Health-measurement questionnaires are constructed in order to recognize the possible indications of disease or illness. Bowling explaines the problem of the health measurement in following: "All measures of health status take health as a baseline and then measure deviations away from this. They are really measuring ill health. It is easier to measure departures from health rather than to find indexes of health itself. A positive perception of health is difficult to measure because of the lack of agreement over its definition." (Bowling, 1991, 4).

It may be supposed, that from the viewpoint of *healthy status* is the *healthy* part of society less examined than *unhealthy* one. Literature about health measurement states, that the point at which a state of health no longer exists, is unknown (Bowling 1991, 2). Hence it would be interesting to know more about healthy status of human being, not only for prevention of diseases, but also for possible longer and happier life including possible improvement of the quality of life.

According to Konlaan, is health status assessible in two ways, either by oneself (self-reported or *perceived health* – subjective perception) or through clinical diagnosis by an expert, e.g. a medical doctor, which is seen as objective (Konlaan 2001, 29). Assessment as necessary for mapping the situation gives important information for planning relevant actions in order to provide enhancement of the health.

Measuring of health has been widely discussed as problematic due to the complexity of the whole of health: "There will probably always be a debate over how best to measure health, and one reason for the debate lies in the complexity and abstract nature of health itself. Like attitudes or motivation, health cannot be measured directly, as can length or weight; instead the process of its measurement is indirect and requires several steps. The first, perhaps, is classification: symptoms are recorded, disabilities are

listed, or the type of pain is described, thus forming variables. There is no single variable that describes health; instead its measurement relies on assembling a number of variables as indicators of health, each of which represents an element of the overall concept" (Mc Dowell/Newell 1996, 10). Measures described by McDowell/Newell cover physical, emotional and social dimensions of health, many cover much more. These are variously termed *general health status measures* or *measures of quality of life* (Mc Dowell/Newell 1996, 380).

Relatively exact information about health can be collected in terms of quantitative measures. According to McDowell/Newell, the measurements monitor either health status or change in health status, and they may do this for individuals or for groups. (McDowell/Newell 1996, 12 – 13). There are several types of classifications of the health measurement: "Functional classifications focus on the purpose or application of the method; descriptive classifications focus on their scope; methodological classifications consider technical aspects such as the method used to record information (McDowell/Newell 1996, 12). An example of a functional classification is Bumbardier and Tugwell's distinction between three purposes for measuring health: diagnostic, prognostic and evaluative.

Diagnostic indices include measurements of blood pressure. Prognostic measures include screening tests. Evaluative indices measure change over time. (McDowell/Newell 1996, 12). Health measurements may also be classified descriptively according to their scope or the range of topics they cover. Measures may focus on an organ system (vision, hearing) or to be concerned with a diagnosis (anxiety or depression scales). Broader measurements measure the syndrome of emotional well-being, much broader measure overall health and broadest of all are the measurements of overall quality of life (McDowell/Newell 1996, 13). ). Quality of life is here noted as respective to the health. One may then presume that in case of illness, the quality of life is not proper. In reality the explanation may be more complicated as noted by Bergner: "Quality of life as it is used in clinical research is a vaque term without conceptual clarity (Bergner 1989, 149 - 150).

Broader discussion about quality of life shows, that quality of life is something different than life satisfaction and is rather viewed in terms of subjective opinion: "Social

scientists have long discussed quality of life. They distinguish it from the concepts of life satisfaction, morale, happiness and anomie largely in terms of level of subjectivity." (Horley 1996, 383). Hence one may ask: could the life-quality to be considered as objective information that may help to predict *perceived health?* 

McDowell/Newell 1996, 424) comprises questions concerning social and emotional may be viewed as related to the cultural participation or personal contact to the fine arts in further. Explaining the complicated area of health measurement writes Mc Dowell: "Universal, perfect index can never exist" (McDowell/Newell 1996, 494). Despite complicated area of health measurement, are expenditure of public funds based on the results of health measurements" (McDowell/Newell 1996, 495). In the end of their discussion on health measurement ask authors: "Why should health be measured any less accurately than other fields such as educational attainment?" (McDowell/Newell 1996, 497). Here one may ask why the expenditure of public funds depends on so unmeasurable phenomenon as health and could it possibly be based on more measurable phenomenon like educational attainment?

Complicated area of health-measurement is comprising many technical methods, and questionnaires. In connection to discriminative indices are mentioned the IQ tests, designed to classify people when no external criterion exists. Mc Dowell notes also, that many methodological advances have not been applied due to what the health indices are less good than their potential. (McDowell 1996, 497). Considering health-measurement on the field of social sciences one may ask to what extent social health measurable and how the abovedescribed diagnostical, prognostical and evaluative methods could be used there.

In the next section of this chapter, the main factors, influencing health, will be reviewed. Beginning with discussions about distinguished quotations on the field of medical sociology, the connections between health of individual and social health appear to be influenced by culture and social capital. Moving from scientific research to the field of public policies of health promotion, the growing need for intersectoral public health system will be reviewed on the basis of WHO Report 2008 and a strategy "Future of the Public health in the 21st century" (2002).

### 2.1.3 What are the main factors, influencing health?

In 1970-s has the medical sociology been drawing attention to the psychosocial models of health-behavior (Becker 1979, 254). Health has been discussed as dependent on behavior of individual. *Behavioral health* is the interdisciplinary study of influence or the selection of lifestyle options that have future wellness or illness concequences. (Burt 1984, 1244). Nowadays there are many books written about *health behavior*. Concept is defined in following: *health behaviour* - an activity undertaken by a person for the purpose of preventing disease or detecting it at an asymptomatic stage (Bowling 2005, 603). Solomon and Maccoby draw attention to the suppositions, influencing the health: "All health behavior is influenced in one way or another by what we suppose" (Solomon, Maccoby 1984, 210).

Burt draws attention to the *metafactors* in connection to health. He argues, that people are not generally open to immediate replacement of unhealthy presuppositions with healthy ones. He suggests the inclusion of *metafactors* in order to improve the forecasting efficiency of future models of health behavior. (Burt 1984, 1245). Levine and Sorenson write about connections between health enhancement and culture in 1985: "To understand the major mechanism used by a society to enhance the health of its members, we must understand the concept of culture – the total social heritage that is learned and transmitted from generation to generation. Culture embraces values, beliefs and judgments about what is good, what is desirable and how people should behave. Culture defines standards of morality, beauty, taste and health. Societies vary in their conceptions of what constitutes health and their prescriptions for achieving and maintaining health for combating illness"(Levine, Sorenson 1985, 222). Here one may ask if social health is formed in terms of standards defined by culture and to what extent may social health be evaluated by current methods of health-measurement? Diagnostically and prognostically measured social health could be also treatable and curable through respectively standardized cultural processes.

Kilroy describes holistic approach to health in the model of transformation change where art is a catalyst for the flow, through which the process of personal development comes true trhough learning and seeing differently. Engagement and embeddeness into artistic activity provides adaption, new relationships and response to raised expectations. (Kilroy 2007; Liikanen 2008).

Sociology of health and healthcare examines the actual problems of the contemporary society from the sociological perspective on health and healthcare. Social role of medicine (Armstrong 2008, 23 - 32), sociological construction of medicine (Atkinson 2008, 33 - 39) and political economy of health and healthcare (Annandale 2008, 3 - 11) are problem-areas, forming the broader social context around impact-research on the field of health and culture. According to Putnam, depends healthy development of kids in large part on the social context in which they come of age (Putnam 2000, 307).

Sociology of health promotion examines health, risk and consumption under late modernism, socio-cultural and free-market critiques of health promotion, lifestyle and prevention problems in risk-society (Bunton, Nettleton, Burrows 1995). Health promotion is claimed to represent a "potential weapon in the battle against socio-economic inequalities in health" (Davison, Smith 1995, 99). Here it is appropriate to ask: how does the current social and health-care system favor healthy behavior? To what extent can individuals practice healthy lifestyle in contemporary market-driven society? Are people enough informed about possible positive and negative indirect impacts on their health? To what extent are they free to choose healthy products, healthy environment, healthy lifestyle and what determines their ability to create, keep and develop healthy social relations?

The World Health Organisation report 2008 shows, that the health expenditure is growing faster than GDP and faster than population growth. The net result is that, with some exceptions, health spending per capita grows at a rate of more than 5% per year throughout the world. This common trend in the growth in health expenditure makes a greater than 300-fold variation across countries in per capita expenditure, which ranges from less than I\$ 20 per capita to well over I\$ 6 000. (WHO report 2008).

Public health strategies suggest the changes in traditional sectors and the creation of an effective intersectoral public health system: "To best address the social, economic, and cultural environments at national, state, and local levels, the nation's efforts must

involve more than just the traditional sectors - the governmental public health agencies and the health care delivery system."(Future of the Public Health in yhe 21st Century 2002, 46).

Intersectorality of the public health system appears in collaboration and integration between health policy, education policy and cultural policy. Culture-related approach in health-policy could contribute in remarkable way as it is presented also in the following vision about future of the public health in the 21th century: "Realizing the vision of healthy people in healthy communities is possible only if the community, in its full cultural, social, and economic diversity, is an authentic partner in changing the conditions for health."(Future of the Public Health in the 21st Century 2002, 204).

Definitions of health, discussed in current chapter, have indicated to the *culture*, that appears to have certain impact on health. Thereby it is appropriate to concentrate in following part of the chapter 2 on the concept of culture.

### 2.2 Culture

One of the most beautiful definitions of culture seems to be following: "Culture tells where a human being is coming from, about ones very essence." (Kangas 2003, 7). In that sentence one may find all essential characteristics of the concept of culture: the storytelling, history, home and very essence of human being.

UNESCO defines culture in following: "In its widest sense, culture may now be said to be the whole complex of distinctive spiritual, material, intellectual and emotional features, that characterize a society or social group. It includes not only the arts and letters but also modes of life, the fundamentals of the human being, value systems, traditions and beliefs."(UNESCO 1998). Definition by UNESCO allows to understand arts in broader meaning. Phrase "not only the arts" may be discussed also as various combinations of the arts-like experiences in different modes of life. Meinander writes, that in the most broad understanding all human activty is culture. (Meinander 2003, 17).

Heiskanen defines culture as unique and homogenous, explaining the broader significance of the concept in following:

- unique, exceptional, especial, scientific, artistic creativity
- homogenous for all, a way of living, customs, values

Heiskanen describes culture in four-dimensional scale, where artistic creativity may be as well as reason as a way of living. (Heiskanen 1999, 124). On the basis of Heiskanen's theory, it seems that culture as reason may be transformed into culture as result in case it permeates phase of experiencing. Importance of experience is emphasized also by Dewey (1934) and Shusterman (1992). Meaning of culture becomes easily clear by experiencing, that may transform into habit as positive addiction or kind of dependence, guiding behaviour, decision-making and way of living.

Richard Shusterman discusses arts as experience: "Art in its creation and appreciation is both directed making and open receiving, controlled construction and captivated absorption. "(Shusterman 1992, 55). Multidimensionality of art in Shustermen's definition draws attention to the enlargning phenomenon of artistic experience in which Shusterman sees arts as concurrently directed and open, controlled and captivated, received and constructed - characteristics seem contradictional, still complementing each other, as the core of art is comparable with something inexplicable – relatively unattainable and easily at reach every moment. Shusterman notes, that every next aesthetic experience depends on previous one. Janet Wolff writes about social production of art, explaining how social institutions affect in the production of arts, how is structured the recruitment and training of artists and how the mediators and economic factors operate in all areas of cultural production through control of cultural institutions and policy making. (Wolff 1981, 40 - 48). According to Wolff, can social production of art be properly comprehended only in a political economy of cultural production (Wolff 1981, 48). Social context, described by Wolff, becomes reality due to the internal sources of culture.

Cultural participation is one of the most effective ways to make communication between internal sources and broader social context more active. One formation of the cultural participation is arts education, which can be viewed as creating better premises for the participatory arts. According to Merli, is involvement into participatory arts a cultivated cultural need and not a primary need (Merli 2002, 117).

Arts education, like all areas of cultural production, is influenced by social institutions and policymaking: "As decision-making field of culture- and education policy, the arts education appears to be contradictional sphere: between whiles arts are determined as vitally important to a person or for society. On the other hand is that considered to be secondary subject by the side of general education, not appropriate amount of lessons are planned for arts education and considered to be not necessary." (Sava 2003, 34).

Arts education as one formation of cultural participation may be viewed as purposeful cultivation of cultural needs, as writes Merli, but it may be argued as well as one way to realize human rights: "Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits (Article 27, The Universal Declaration of Human Rights). Culture has been described as civil right and citizen's political aim: "Now do we need culture as the right of citizen, as political aim." (Setälä 2003, 15).

Multidimensionality of culture indicates to the comprehensive area of cultural policy. Georg Simmel has been drawing attention to the discrepancy between objective and subjective culture: "No cultural policy can eliminate the tragic discrepancy between objective culture, with its unlimited capacity for growth, and subjective culture, which can grow only slowly" (Simmel 1909). According to Simmel can cultural policy work towards reducing that discrepancy by enabling the individual to make better and more rapid use of the elements of objective culture in our lives as the raw material of subjective culture, which, when all is said and done, is the only thing that gives the former any real value (Simmel 1909). Binding together the past, present and future, formulates Simmel the ultimate purpose of culture as process: deriving subjective state of mind from objective culture:

"Throughout history, some eras have given greater emphasis to the task of increasing the elements of objective culture, others to that of enabling the individual to derive from that objective culture the subjective state of mind, which is the ultimate purpose of culture." (Simmel 1909).

On the basis ultimate purpose of culture, defined by Simmel one may argue, that objective culture with unlimited capacity for growth is created by subjects who are relatively limited as their own subjective culture can grow only slowly. Objective culture could be viewed here as social context comprising traditions and social formations whereas individual could be viewed as subjective state of mind. According to Simmel can subjective culture grow, using elements of objective culture as raw material of subjective culture. The only criteria, through which objective culture could be evaluated, seems to be found on corresponding area of subjective culture. Discussing further about interaction between subjective and objective culture, the essential role of education appears to be important as process through which the knowledge and understanding elements of objective culture derives to subjective culture. What kind of subjective culture is going to be formed, depends on objective culture comprising conditions determined by social formation. In case subcultures are more favored than classical art, may certain changes appear not only in planning and public policies but also in basic values of society in long run.

Pirnes argues that the broadest way to understand the concept of culture is meaning-based semiotic-phenomenological way that is based on signification and intentionality in lifeworlds and social practices (Pirnes 2008, 280 - 281). Pirnes draws attention to creativity in focus nevertheless the transactions between creative and regulative actions and action orientations have to be reckoned among significant processes. According to Pirnes, could significant processes be understood as policy and creative actions as artistic activity. Thinking further, might regulative actions associate with funding and legislation, whereas action orientation could be understood as education and research of the field. According to Pirnes could abovedescribed processes be implemented into reality of arts and society in following model: There are two kinds of actions: creative actions (arts) and regulative (funding, legislation) and then there is action orientation (formed by education and promoted by research of the field). Transactions between creative action, regulative action and orientation are reckoned among significant processes (cultural policy, education policy, health policy).

Smiers sees arts as a field where emotional incompatibilities, social conflicts and questions of status collide in a more concentrated way than it happens in daily

communication. Add to this considerable economic interests, that always penetrate cultural field and we find ourselves in an area of human life highly charged, writes Smiers (2003). Thereby one may presume that integrating the arts and culture into health-care brings there among various positive impacts also emotional incompatibilities, economic interests, social conflicts and questions of status.

Purpose of this section has been to discuss about the concept of culture. Arts as core of culture can become part of every individuals life in cultural participation and artistic experience. Broader processes, forming the culture are influenced by extensive social context. Among others the social meaning of culture appeared to be important. As the culture is issue of society and appears in relationships between people, the next part of chapter 2 concentrates on the phenomenon of social capital.

### 2.3 Social capital

Social capital is usually described as formed in good relationships between people. Good relationships are important in every area of life, but appear more likely in positively-tuned atmosphere: "Social capital emerges generally as by-product of the other social activites" (Kaunismaa 2001, 125). Ruuskanen explains, that in formation of the social capital, the bindings and networks between individuals and groups are central. In other words, that people are in touch with other people. (Ruuskanen 2001, 97).

On the basis of abovedescribed explanation of social capital, a question about appropriate interest or motivating factor comes to the fore, eg. what could motivate people to be `in touch` with each-other? One possibility to meet people is to participate at cultural activities. Music, art, theatre or sport inspires people to change opinions about shared experience, to discuss on themes related to their area of interest, to review earlier experiences as well to plan the next attendance. Granowetter writes, that weak ties on micro-level enable information to flow. They add possibilities for collaboration between actors. On macro-level their importance is emphasized by adding cohesion (Granowetter 1973, 1373). Ruuskanen discusses about Granowetter`s classification of the social

bindings: continually maintained *strong ties* (characterized by solid communication, emotional intensity, mutual trust and reciprocal services) and distant, not so often maintained *weak ties*. Specially weak ties are considered to be important for social network's capacity to change structural information (Ruuskanen 2001). Examining the audience of a cultural event may identify both types of the abovementioned social bindings, most of them could be viewed as *weak ties*, as great amount of the audience do not usually know each-other very closely, they still have similar interests in some relation. Thereby could cultural events be viewed like social sources or structural conditions for potential social bindings.

On the basis of the abovedescribed social capital formation and influence, one may presume, that experiencing arts, either by participating in creative processes or being member of audience keeps alive important weak ties between people on micro level and adds social cohesion on macro level of the society. Importance of societies consists in their origin to keep up actions, processes and activities. Kaunismaa argues, that society-life has notable educative task, socializing citizens of the democratic regime. In addition society-life integrates it's members, who thereby learn to perceive society as production of their own and other people's behaviour and working.(Kaunismaa 2000, 120-121). Markku T. Hyyppä writes, that culture of community can be learned through the medium of the prevailig tradition of behaviour and culture of education. (Hyyppä 2002, 182). Close connection between education, culture and sociability indicates to the impossibility to improve one feature without taking into account the others. In further the general influence of abovedescribed sociability is explained from the economical point of view, witnessing the close connection between culture, sociability and economical processes:

- 1. "Prevailing rules or economic institutions (North 1993) are influencing on that, what kind of models of actions are reckoned to be economically reasonable and then contributed for example for public arrangements.
- 2. From the other side the economical actions of entrepreneurs frame *unifying social capital*, social networks between individuals and structure of those networks; by what entrepreneurs have connections to possible collaboration partners and to which kind of collaboration positions are reachable for them through forementioned connections.

3. In addition to the economical actions the *binding social capital* poses own conditions, influencing for example on entrepreneurs identity of functioning and confidence.

These together form a certain kind of social infrastructure of economical arrangement, whose within entrepreneurs attempt to make reasonable choices, writes Ruuskanen. (Ruuskanen 2001, 98).

One of the most known researchers on social capital, Robert Putnam emphasizes the importance of social connectedness in the case of health and well-being (Putnam 2000, 326). Putnam argues, that social networks may reinforce healthy norms - socially isolated people are more likely to smoke, drink, overeat, and engage in other healthdamaging behaviors (Putnam 2000, 327). Describing social capital in various forms of social interaction as club meetings and church attendance, indicates Putnam to the link between social connections and psychological well-being (Putnam 2000, 333 – 334). Putnam argues, that social capital is diminishing in contemporary society: "Young and middle aged adults are today less likely to have friends over, attend church, or go to club meetings than were earlier generations" (Putnam 2000, 335). Here one may ask if virtual networks and computerized socializing could be viewed as new formation of social capital and to what extent could it favor, extend or replace live contacts. According to Putnam is the younger generation today perhaps no less engaged than their precedessors, but engaged in new ways (Putnam 2000, 26). He sees still diminished social capital likely to have damaging consequences in the quality of education (both in school and outside) that our children receive (Putnam 2000, 306). Social capital has been found also in the negative formation. The absence of social relations and trust has been considered to erode social capital of each community (Iisakka, Alanen 2006, 13; Alanen, Niemeläinen 2001).

Importance of education in connection to social capital is stressed by Putnam as well as by Markku T. Hyyppä, who draws attention to the extracurricular activities, which contribute to the better achievements of pupils not only during their schoolyears but also in their further life. According to Hyyppä, usually the exterior hobby-circle bears to determinate the scholar's future." (Hyyppä 2002, 183).

Stolle and Rochon (1998) measured social capital and found that specially high rate of social capital is associated with cultural societies, but high social capital has been

observed also among members of the political, economical and free-time societies. (Kaunismaa, 2001, 133). Social interaction that becomes possible in cultural participation, may be one important factor, influencing health. Putnam argues, that social isolation has measurable chemical effects on the body (Putnam 2000, 327). Connections between social interaction and health, indicated by many researchers on the field of social sciences indicate to the associations between social capital and health. Nieminen writes, that health as outcome of social capital is a still rather novel area of study (Nieminen 2006, 57). Social dimension has impact not only on social health but also on individual's perceived and personal health. More information about those impacts may appear through further studies. Nieminen argues, that it is necessary to conduct follow-up studies in order to gain a clearer picture of any causal relationships between social capital and health (Nieminen 2006, 61).

Concept of *health-culture*, discussed in the next chapter, could be viewed as example of the convergence between health-science, social- and cultural studies.

### 3. SOME THEORETICAL ASPECTS OF THE RELATION BETWEEN HEALTH AND CULTURE

This chapter aims to focus on theoretical aspects of the relation between health and culture. Connections between social capital and health, pointed out by Nieminen in her research *Social capital and health in Finland*, have been examined by several researchers, who have proved that cultural participation has impact on health. Research on health-care has indicated to *empowerment* as phenomenon, that appears to be of great importance in health-enhancement. Mattila writes about health model by Jones and Meles, indicating to the connections between health and empowerment: "Entire humans interact with their surroundings. Empowerment and health have strong connection with both internal and external resources. In the health model by Jones and Meles (1993) the individual's health potential power of the development process is greater than the cinestethic energy, which is needed for physical performance. Because people are global,

a healthy presence in the healthy and becoming force or energy is influenced by man. All the physiological, psychological and cultural dimensions"(Mattila 2008, 32).

Cultural dimensions are essential to physiological and psychological health, writes researcher who examined the health from the viewpoint of health-care and not from culture-centered point of view. Hence the natural connection between health and culture appears from the professional world of health-care and positive impact of culture on health is considered to be essential.

McDowell and Newell write about rising expectations and shift away from viewing health in terms of survival to an emphasis on the individual ability to perform daily activity, and more recently to an emphasis on positive themes of happiness, social and emotional well-being, and quality of life." (Mc Dowell/Newell 1996, 12). Authors note, that many methodological advances have not been applied due to what the health indices are less good than their potential. (McDowell/Newell 1996, 497). Note by McDowell/Newell inspires to presume, that methodology of health measurement could be developed in collaboration with other human sciences, where the potential of health indices could be found.

Staricoff (2003, 3) explored impacts of visual and performing arts in healthcareunits of the Chelsea and Westminster Hospital during 1999 – 2002. Results of this research provide the evidence that the integration of visual and performing arts into the health-care environment induce psychological, physiological and biological outcomes which could have clinical significance. According to Staricoff, music and performing arts reduced anxiety and depression of patients in Medical Day Unit, Antenatal Clinic, Postnatal Ward and in Day Surgery Unit (Staricoff 2003, 3). Among other results described by Staricoff there are following: decreased requirements of analgesia in Trauma and Ortophaedic Ward, lowering blood pressure of patients waiting for their appointments in Antenatal High Risk Clinic and reduced cortisol level (a hormone related to stress) in Day Surgery Unit. Integration of the visual and performing arts in healthcare reduced amount of drug consumption, shortened length of stay in hospital, improved patient management and contributed towards increased job s satisfaction (Staricoff 2003, 4). This research proved direct connection between aesthetic experience and measured health. Findings of the research by Staricoff may be interpreted as contributing to the theoretical framework of the health-culture concept.

Liikanen discusses about art as special formation of psychotherapy and part of healthcare. She sees supporting the artistic work and creating the possibility for young artistis as one of the purposes when adapting art and cultural action into healthcare environment (Liikanen 2003, 15).

Konlaan explored the link between participation in the cultural life in the community and survival and found, that stimulation by cultural attributes such as the fine arts had *specific* effects apart of group effects and attention effects on health determinants (Konlaan 2001, 60). According to Konlaan, this finding points at specific effects of fine arts irrespective of social networking, group interaction or attention effects. Specific effect of fine art is explained by psychological and biological impacts that artistic experience induces to human being. In the research, carried through by Konlaan, it was found, that cultural stimulation influenced the prolactin and blood pressure levels. Author concludes, that general improvement in access to cultural participation would probably reduce the differences in health status between the high and the low users of the supply and improve the health of general population (Konlaan et al., 2000, 319).

Healthy impacts of living music and visual arts activities proved in hospital evoke question: why are fine arts quite modestly practiced and experienced on the field of healthy society? There may be various social reasons as cultural participation is connected to the socio-economic processes and may be discussed also as political concept. Here one may talk about various kind of cultural participation, which can be conscious or emotional whereas being opportunity, choice, habit or attitude. Reasons of relatively restricted access to cultural participation may be related also to the lack of information about arts impacts. In addition may the above discussed reasons be related to the broader educational system. Hyyppä writes: "School prepares too unilaterally for a vocation and working-life. Contacts generated in scholars- and citizenship society during free-time are more significant than imagined, as formed weak networks add (according to the scientific researches) access possibilities to work, free choosing possibilities and also well-being. Maybe the most important issue in free-time citizenship activity is on the

side of creativity and self-learning, in which the effect of the traditional school-institution is weak (Hyyppä 2002, 183).

Weakness of traditional school system could be improved in remarkable way when including more possibilities for extracurricular activities. One method for that could be Integrated School Day (ISD), a program, examined by Pulkkinen and Metsäpelto. ISD means extracurricular activities, organised on the school premises and overseen by the school principal (Pulkkinen and Metsäpelto 2008, 6). *Integrated school day* as method (ISD) could be favorable for accumulation of social capital. According to Putnam, is social capital educationally more important than financial capital and continues to have powerful effects on education during the college years. (Putnam 2000, 306).

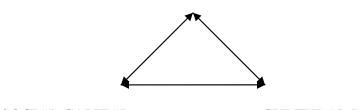
Broader context around health-enhancement, particularly in linkage with educational and cultural policy seems to be in need of more exploration as there may appear certain areas which drop in between determined areas of responsibilities. The Finnish Commission of the Health Enhancement draws attention to the need for concept delivering the message. Good example is brought from sports, where the concept of health-motion was created from above according to subscription. Concept of health-movement is considered to be well-established and people have understood that. (Note of the meeting in the Finnish Ministry of Education and Culture in 03.12.2008).

Relevant concept for area of health and culture could be *health-culture*. This concept (first mentioned in 1963 by Polgar) is earlier discussed by Tuula Vaskilampi, who reviews Hochbaum's interpretation about health-culture, emphasizing that as shared by most of the members of society. Hochbaum divides health-culture to primitive, nation-related and medical (Hochbaum 1970, 44., Vaskilampi 1979, 25). Vaskilampi writes, that Polgar and Hochbaum limitate an area from overall culture, which they consider to be related to health, but they do not consider other fields of culture to have also health-related impacts.

Vaskilampi defines health-culture in formation of Parson's concept: "Health-culture includes the mehcanisms of control by what the society aspires to secure the capacity. In other words, it includes the directives and terms of reference in situations related to health. Those situations may be either situations of social communication or activities of the individual without other parties of the society. Main elements of the

health-culture are informational, emotional and evaluative symbols related to health, appearing in collective behavior and objects" (Vaskilampi 1979, 27). Informational, emotional and evaluative symbols, described by Vaskilampi, may be discussed as connected to social capital and cultural participation:

HEALTH - CULTURE



SOCIAL CAPITAL CULTURAL PARTICIPATION

On the basis of the abovedescribed interrelations between health-culture, social capital and cultural participation, it could be presumed, that enhancing cultural participation is advantageous for social capital and health-culture.

Research on cultural participation in one home of aged people assured, that most favored hobbies and activities are those, to which patients participated when they were young (Seppänen 2006, 2). Here one may argue, that public policies which are directed to expand youth access to hobby-activities, are effective investments for society broader, whereas contributing to lifelong habit for cultural participation and opening broader variety of choices for hobbies, which may be supportive in various situations of life, including retirement or possible being patient of the social care institution.

Research by Pulkkinen/Metsäpelto showed that involvement in extracurricular and out-of-school activities, particularly in arts was associated with increased school achievements and more adapt socioemotional behavior. (Pulkkinen/Metsäpelto 2008, 15). Similar ideas can be found on the field of educational research where Bloom and Remer bring 10 features by what arts are contributing to the education:

1. The arts provide a medium for personal expression

- 2. The arts focus attention and energy on personal observation and self-awareness
- 3. The arts are universal phenomenon and means of communication
- 4. The arts involve the elements of sound, movement, color, energy, space, line, shape, and language
- 5. The arts embody and chronicle the cultural, aesthetic, and social development of humankind
- 6. The arts are a tangible expression of human creativity, and as such reflect humanity's perception of the world
- 7. The various fields of the arts offer a wide range of career opportunities to young people
  - 8. The arts can contribute substantially to special education
- 9. As a means of personal and creative involvement by children and teachers, the arts are a source of pleasure and mental stimulation
  - 10. The arts are useful tools for everyday living (Bloom, Remer 1976, 45).

On the basis of 10 abovedescrfibed features, found by Bloom and Remer it may be presumed that arts are not something extra. Rather may they be viewed as part of the basic education that has to prepare human being for life. Similar is noted by John Goodlad in 1979: "The arts do not belong exclusively to the domain of personal development. They contribute just as much and as appropriately to the goals of citizenship, socialization, economic sufficienty, and the understanding of our civilization." (Goodlad 1979, 23).

Considering more adapt socioemotional behavior, that appeared particularly as result of the involvement in arts activities (Pulkkinen and Metsäpelto (2008, 15) and earlier presented Konlaan's finding about specific effect of the fine arts on health determinants, it could be expected that access to arts-education, which is one formation of cultural participation, might be discussed as one possible indicator, providing information and long-term prediction about of public health.

### 4. RESEARCH QUESTIONS, DATA AND METHODOLOGY

Methodology of current master's thesis is content analysis of the secondary data, choosen among many scientific researches on the area of health and social impacts of arts and culture. Searching was carried through in databases of the Library of the University of Jyväskylä and in database http://scholar.google. Due to the great amount of scientific researches available, it was necessary to determine the preliminary choosing criteria. This carried through in negotiations with supervisor of current master's thesis. The main focus was set into researches, which are innovative and expanding the area of research about health and social impacts of culture. Arts therapy, as independent area of research which long traditions was thereby not considered to be relevant to examine in current master's thesis. Choosing the data was lead by criteria to focus on area, where arts are included into social institutions and where the health-impacts of arts are possibly exactly measured. Main motivation in reading the researches was interest towards understanding the mechanism by which the impacts are working. It was important to find out the main methods, used for measuring the impacts, as well as the relation between different impacts. At first it was considered to be important to understand the processes in the mind and body of human being during the artistic experience. This kind of processes are well described in the research by Konlaan. Processes on micro level may indicate to the possible changes on macro level. Beside direct impacts, examined in current master's thesis, there are also several indirect impacts, influencing the research area: education, socioeconomic factors and social policy. Examining the society from culture-centered viewpoint, exploring the borders of sectoral policy and understanding the broader social context around impact studies, were the main motivators of current master's thesis.

Six researches will be examined in this chapter. In the preliminary choosing-process, around 30 researches about social impact of arts and culture were considered to be potential material for data. In addition around 10 project evaluations, describing different cases about implementing the cultural experience and participation on community level, were considered to be important to read and think about, in order to understand broader social context arount impacts research. Project evaluations are still

not included into current master's thesis as the main purpose was to focus on scientific research analysis.

First section of this chapter focuses on the concept of health on the basis of researches examined. Section 5.2 aims to answer to the research-question number 1: What are the arts impacts of health? Section 5.3 concentrates to the research question number 2: How is the relation between different impacts measured and analyzed? Last section of the chapter 5 concentrates on discussion about main findings appeared from previous sections and suggestions by the authors of researches analyzed. Purpose of current master's thesis is to analyze the researches and to answer to the following research questions:

- 1) What are the health impacts of arts and culture?
- 2) How is the relation between different health impact of arts and culture measured?
- 3) How to develop the current assessment methods and processes?

Following is the overview about 6 researches analyzed in current thesis. Data is collected on the basis of abstracts of the researches number 1, 3, 5 and on the basis of executive summary of the research number 2 as there was no abstract added in this study. Searching the researches and choosing among different areas of impacts was inspired also by active personal experience on the field of cultural participation.

## Boinkum Benson Konlaan (2001). Cultural Experience and Health. The coherence of Health and leisure time activities. 5 original studies.

Konlaan proved that participation in cultural life has positive impact on health. Based on 140000 persons at risk, it was found that attending four specific cultural attributes – film, concert, art exhibition and museum visits, covaried with survival and that stimulation by the fine arts has effects on health determinants, apart of attention and group interaction effects. (Konlaan 2001, 7 - 8). There are five original studies examining the healthy impacts of culture in above described book.

- I Konlaan BB, Bygren LO, Theobald H. Leisure time activity as a determinant for survival: A 26-year follow-up of a Swedish cohort.
- II Bygren LO, Konlaan BB, Johansson SE. Attendance at cultural events, reading books or periodicals and making music or singing in a choir as determinants for survival: Swedish interview survey of living conditions (BMJ 1006; 313:1577 80).
- III Konlaan BB, Bygren LO, Johansson SE. Visiting the cinema, concerts, museums or art exhibitions as determinant of survival: A Swedish fourteen-year cohort follow-up. Scand J Public Health 2000; 28:174 178.
- IV Konlaan BB, Björby N, Weissglas G, Karlsson LG, Widmark M, Bygren LO. Attendance at cultural events and physical exercise and health: A randomised controlled study. Public Health 2000; 114, 316 319.

### Rosalie Lelchuk Staricoff, Jane P.Duncan, Melissa Wright (2003). A Study of the Effects of Visual and Performing Arts in Health Care 1999-2002.

The research project designed a unique approach to scientifically evaluate the effect of visual and performing arts in health care. This is a subject concern for a wide range of professionals, including health authorities, policy makers, medical and nursing staff, artists and administrators. Units of research were established in the clinics of Chelsea and Westminster Hospital. The research explores whether the visual and performing arts could have an effect on psychological, physiological and biological outcomes of clinical significance. Conclusions of the research state: The integration of the Visual and Performing Arts in Healthcare induces significant differences in clinical outcomes, reduces amount of drug consumption, shortens length of stay in hospital, improves patient management, contributes towards increased job satisfaction and enhances the quality of service (Staricoff 2003, 3 - 4).

## Hanna – Liisa Liikanen (2003). Art meets life. The Arts in Hospital initiative and cultural activities in the everyday life and festivities of care units in Eastern Finland.

The Arts in Hospital programme was created in 1990 as an initiative of the World Decade for Cultural Development of the UN and UNESCO, spreading to 18 member states altogether. The aim of initiative was to increase the cosiness of care institutions through the use of art, to integrate art and cultural activities as part of the treatment, rehabilitation and working methods in social and health care (Liikanen 2003, 11).

Liikanen examined the scope and forms in which the Arts in Hospital program is reflected in the everyday life of care institutions in Eastern Finland. The methodology employed in empirical part was ethnography and qualitative methods. Liikanen writes about four dimensions of the aesthetic experience, described by Richard Shusterman:

- 1. Art provides artistic sensations and meaningful aesthetic experiences.
- 2. People in contact with art usually express a better self-rated health and feel they are leading more satisfactory life.
- 3. Artistic activities create communality and networks, giving one better control over one's life.
- 4. Art makes living and working surroundings more enjoyable and attractive. (Shusterman 1999, 2000; Liikanen 2003, 29).

The framework theory is Richard Schusterman's philosophy of pragmatist aesthetics which emphasises the element of positive experiences provide by art and its active and practical role in life. Liikanen writes, that interviews, observations and diaries conducted and written in the four social and health care units are convincing proof that art and cultural activities are a part of everyday life in care units albeit randomly and usually by amateur artists. Liikanen argues that the field of art and culture can meet with the field of social and health care, if attitudes towards other people's professions and opportunities to interact are more equal. Access to culture as human right and as a part of everyone's life is prerequisite for the successful meeting of arts and healthcare. Integration of art and cultural activities has not yet materialised, writes Liikanen.

# Lea Pulkkinen, Riitta-Leena Metsäpelto (2008). Running ahead: Extracurricular activity participation in middle childhood.

The 3-year longitudinal study investigated the associations of pupils` participation in extracurricular activities with teacher-rated socioemotional behaviour and school achievement in middle childhood (aged 9 to 10 at Time 1; N=281). MANOVA results showed (similarly for girls and boys), that, after controlling for the grade level and the initial level of the outcome variables, participation in arts and crafts and music activities was related to higher adaptive behaviour indicated by socially active, responsible, and compliant behavior. The same artistic activities were related to higher academic attainments referring to reading, writing and arithmetic and to higher academic working skills indicated by persistence concentration and carefulness. Participation in arts and crafts was linked to lower internalizing problems. Participation in performing arts was associated with higher academic working skills. Participation in academic clubs was related to higher academic attainments and lower internalizing problems. On the contrary, participation in social clubs was associated with higher externalizing problems and lower academic attainments, and participation in individual and team sports had no relationship with the measured socioemotional behaviors, academic attainments or working skills. (Pulkkinen/Metsäpelto 2008, 2).

# Christina Grape, Maria Sandgren, Lars-Olof Hansson, Mats Ericson and Töres Theorell (2003). Does singing promote well-being? An empirical study of Professional and Amateur singers during a singing lesson.

This study explored the possible beneficial effects of singing on wellbeing during a singing lesson. Eight amateur and eight professional singers were attending the singing lessons. Their heart rate was measured and endocrinological-biochemical analyses were taken before and after singing lessons. In the introduction of the research there is indication to the earlier studies where it has been claimed that frequent participation in cultural activities may prolong life, although it has never been shown specifically that singing in itself may do so (Konlaan, Bygren and Johansson 2000). The purpose of current research is to test the hypothesis through singing lessons and to find out if there

might have cardiovascular as well as endocrinological-biochemical effects on the subjects and if they might be more beneficial for well-being in amateur than in professional singers. (Grape, Sandgren, Hansson, Ericson, Theorell 2003, 66). Amateurs reported increasing joy whereas professionals did not. (Grape et al. 65). Heart rate variability power increased during singing professionals, whereas there were no change in amateurs. The professionals were more physiologically fit for singing, but did not experience the same well-being as amateurs seemed to do.

## Suvi Saarikallio, Music as Mood Regulation in Adolescence. University of Jyväskylä. Jyväskylä Studies in Humanities, Dissertation, Jyväskylä 2007.

This study examined how adolescents use music in their mood regulation. Saarikallio explains that mood regulation is realized through various regulatory strategies. The aim of the study was to increase understanding of psychological goals and processes related to affective experiences of music in everyday life. Research by Saarikallio consists of three sub-studies proceeding form a broad exploration of music's psychological functions toward a specific understanding of mood-regulatory process:

Study 1: "Categorizing the psychological meanings of music."

Study 2: "Conceptualizing mood regulation by music."

Study 3: "Measuring mood regulation by music".

First study resulted in a theoretical categorization of four areas in which music supports adolescent psychological development: *identity, agency, interpersonal relationships and emotions*. 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*. Study 3: "Measuring mood regulation by music" 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 and 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.

### **ANALYSIS**

#### 5. WHAT ARE THE HEALTH IMPACTS OF ARTS AND CULTURE?

### 5.1. Concepts of health in researches examined

Concept of health is defined in three researches (Konlaan, Staricoff, Liikanen) whereas indirect connection to the health comes forth through concepts explored in two researches (Saarikallio; Pulkkinen/Metsäpelto). Concept of health, introduced on the basis of different definitions in chapter 2 of this master's thesis, will be elaborated in this section on the basis of discussions and findings, described by the authors of 6 researches examined.

Konlaan, Staricoff and Liikanen begin their discussion about health from the definition by the World Health Organisation: "Health is state of complete, physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO 1946). On the basis of that definition one may presume that health is well-being in three dimensions: physical, mental and social. Researches examined in current master's thesis explore the relation between individual and social well-being.

Liikanen sees this definition creating basis for new thinking about health. In her discussion about arts and cultural activity on the field of health, following elaborative characteristics, expanding the health-concept, appear: positive meaning of health,

ecological health (Karisto 1984), health as a resource (Purola 1971, 1972; Rauhala 1983), connections between health and tolerance of culture (Hyyppä 2001; 2002, ks. Purola 1972), and aesthetic essence of the health (Eriksson 1989, 1998). Positive meaning of health comprises self-realization, creativity, activity, gratification and happiness (Karisto 1984, 57 – 61; Liikanen 2003, 41). Among other characteristics or features of health, the connection between health and wisdom appears among benefits, described by Wärnå: wisdom, self-control, belief, courage, hope, love, humbleness and friendship (Wärnå 2002, 54, 134). Experiencing of beauty has believed to be deeply perceived experience of health, source of power and pleasure, It may stand for harmony, bear the sufferings and spiritual growth (Ruohonen 2001, 35). Health is defined also as resource in social, economic, cultural framework as well in physical, awareness and social activity of individual (Purola 1971, 1972, 374; Rauhala 1983). Social and aesthetic connections discussed by Liikanen, elaborate the WHO definition, indicating also to the credibility of ancient definition by the Greek Goddess of health, who claimed that health is a positive attribute and natural order of things, to which men are entitled if they govern their lives wisely (Dubos 1959, 1987, 131).

Konlaan sees the WHO definition as "placing emphasis on the health of the individual as a whole and not only some aspects of human health, e.g. the physical, mental or the inner-self" (Konlaan 2001, 29). Discussing the definition of health from the viewpoint of his research, Konlaan concludes, that WHO definition was not convenient for his research, as the purpose of researchers was to control for social circumstances included in the WHO concept of health as well (Konlaan 2001, 29).

Staricoff begins her scientific approach to the Study of the Effects of Visual and Performing Arts in Health Care, asking: What is health? Answering with definition by The World Health Organisation, continues Staricoff on the basis of several articles discussing on healthy impacts of arts (Smith 2002, Philips 1996), Wilson 1972, Ulrich 1984, 1990) and summing up that the reports are mostly based on anecdotal information or opinion-based surveys (Scher, Senior 2000). Research project by Staricoff investigates a different angle; it produces evidence of the therapeutic effect achieved by the integration of visual and performing arts into the health care environment (Staricoff 2003, 5).

Study by Grape, Sandgren, Hansson, Ericson and Theorell (2003) explores the possible beneficial effects of singing, using 6 health measurement variables: serum cortisol, serum tumor necrosis factor - alpha, oxytocin, prolactin, electrocardiograph and visual analogue scale. (Grape, Theorell et al., 2007, 1). Physical health is in this study examined through changes in health-status during singing lesson and perceived health evaluated in visual analogue scale.

Referring to several researches writes Suvi Saarikallio about health-promotion explaining that music can be used, either for mood regulation or therapeutic purposes, for example in hospital settings for reducing pain, stress and anxiety or in everyday life settings. Saarikallio examines the psychological functions of music in the everyday life of adolescents. Research on affective experiences of music may be discussed as related to health, as the research is examining the area of emotions and perceived (well)being. In that area there may well occure to be also to be around a point, described by Ann Bowling: "The point at which the state of health no longer exists is unknown (Bowling 1991, 2).

Research by Pulkkinen and Metsäpelto draws attention to the positive impacts of the extracurricular activities in the middle childhood. Central concepts of the study are *socioemotional behavior* and *academic achievement*. Pulkkinen and Metsäpelto bring forth connections between participation and better educational attainments indicating to the limited available evidence by the National Institute of Child Health and Human Development, where it has been found that younger children generally benefit from participation: it has been found to be related to better educational attainment high level of emotional adjustment and social competence several years later (National Institute of Child Health and Human Development 2004). On the basis of the research by Pulkkinen and Metsäpelto, it may be supposed that socioemotional behavior and school achievement are implicitly related to health.

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## 5.2 What are the health-impacts of arts and culture?

Arts impacts on health appear in all 6 studies examined. In researces by Konlaan and Staricoff, the physical, social and psychological impacts are explored. Liikanen discusses about aesthetic and psychotherapic impacts of arts, bringing forth the positive impact of arts and cultural activities both on the level of individual health and on the level of social health. Increased sense of sociability was one of the main findings during the research. Cultural activity as part of the process of care in healthcare institution is the main subject of the research. Liikanen sees the arts and cultural activities surmounting the daily routine (Liikanen 2003, 152- 153). In conclusions of her study that on the field of healthcare there is positive attitude and appreciation prevailing towards arts and cultural activities. More active cultural life is hindered due to the lack of appropriate funding.

Staricoff examined the effects of the visual and performing arts in healthcare. On the basis of research the following conclusions were made by Staricoff: the integration of the visual and performing arts in healthcare induce psychological, physiological and biologic outcomes, which could have clinical significance (Staricoff 2003, 4). Among other impacts, described in study by Staricoff, there is information about Maternity Unit, where the results showed a shortening the duration of labour by a significant and much welcomed 2.1 hours (Staricoff 2003, 16). Staricoff noticed, that cortisol level, a hormone related to stress, was significantly reduced during the time the patient was in hospital and that live music appears to be more effective than visual art in lowering the levels of anxiety (Staricoff 2003, 31). Live music increased significantly the number of accelerations in the heartbeat of the unborn child - a sign of wellbeing. The number of accelerations increased during and at least 10 minutes after the mother had listened to live music (Staricoff 2003, 32). According to Staricoff, contributes clinical environment offering interesting and attractive visual and live music contributes to shortening the length of stay in hospital and reduces the consumption of analgesics (Staricoff 2003, 36).

Saarikallio draws attention to the psychological functions of music in adolescence. According to Saarikallio, those functions can be divided into four categories: *identity, agency, interpersonal relationships and emotional field* (Saarikallio 2007, 21). In her study brings Saarikallio forth the following impacts of music in

adolescent's life: music could help to control emotions and inner impulses, it provided experiences of capability, learning, mastering, achieving and succeeding, which strengthened the adolescents' self-esteem (Saarikallio 2007, 22). Music offered the adolescents resources for increasing and restoring well-being and made their emotional life more varied and colorful (Saarikallio 2005, 186; 2007, 23).

Research by Grape, Sandgren, Hansson, Ericson and Theorell proves that impact of artistic experience depends on previous experience of participator. Measuring the serum concentration of prolactin and cortisol proved that impact of singing lesson may be different in respect of gender also. (Grape et al., 2003, 65).

The most interesting for author of current master's thesis was the research by Konlaan, Bygren, Johansson: Visiting the cinema, concerts, museum or art exhibitions as determinant of survival (Konlaan 2001; Scan J Public Health 2000). The aim of this study was to ascertain the possible influence of attending various kinds of cultural events or visiting cultural institutions as a dereminant of survival (Konlaan et al., 174). In this study the effect of non-verbal stimulation through pictures, objects and music is proved on the basis of the following theories: psychoanalytic theory of art (Kreitler 1993), arousal theory, communication theory (Winner 1982) theory of tension reduction (Spencer 1997), a theory describing connections between experiences of enriched environment and changes in hippocampal region (Kolb B, Gibb R) of the brain and influences the HPA-axis, i.e. the hypothalamus, pituitary gland, and adrenal gland (Konlaan, Bygren, Johansson 2000, 175).

Theories by Kreitler & Kreitler, Spencer, Winner and Kolb/Gibb explain arts impacts on health in following:

- 1. Different art forms afford vicarious fantasy gratification of unsatisfied wishes in a sublimated, socially acceptable form (psychoanalytic theory by Kreitler & Kreitler 1993).
- 2. Music, pictures and symbols enable to describe the inner reality more precisely than words and/or statistics (communication theory by Winner 1982).
- 4. Art influences arousal psycho-physically e.g. by loudness, the arts expressions association with survival matters like food, war, sex or death and the contrast with earlier

experiences, i.e. novelty, surprise, complex pattern or heterogeneity, irregularity and asymmetry of the elements (arousal theory by Winner 1982).

- 5. Art generates multidimensional tensions, but also absorbs diffuse tensions in the spectator. Specific tensions may be resolved through other aspects of the art input. Such resolution is attended by pleasure (theory of tension reduction. Spencer 1995, Konlaan, Bygren, Johansson 2000, 174). Tension reduction is suggested to consist in the arousal and relief of tension (Konlaan, Bygren, Johansson 2000, 174).
  - 6. The enriched environment has influence on processes in brain:

The enriched environment increases the number of dendrites and synapses in the hippocampal region of the brain and influences the HPA-axis. This axis, in interaction with the hippocampal region, initiates a vicious circle, leading to depression. The enrichment is believed to break the circle by producing enough receptors in the hippocampus for glucocorticoids to match the adrenal gland in fight-and-flight situations (Rasmusson, Olsson, Henriksson, Kelly et.al 1998). The empirical evidence for the impact of art experiences on humans derives from the art and arousal therapies (Wikström, Theorell, Sandström 1993).

Study about participations at different kind of extracurricular activities (Pulkkinen/Metsäpelto 2008) proved, that participation in arts lowers internalizing problems and develops several positive characteristics which help pupils to learn better and achieve one's aims in their future life. Results of this study indicate to the connections between socioemotional behavior and health. Those results are thereby indicating also phenomenons of health-behavior and behavioral health, discussed earlier in this master's thesis (see chapter 2.1.3).

#### 5.3 How is the relation between different impacts been measured and analyzed?

In this chapter the health-impacts of arts and culture, appeared in studies, will be described and some theories, explaining the psyhological, physiological impacts of arts will be introduced. Impacts of arts and culture appear in measurements of individual's health. Health can be measured by quantitative (variables that show the physical status of

individual) and qualitative methods (perceived health, self-reported by individual). In following subsection the arts impact on physical health will be described.

# 5.3.1 Arts impact on physical health

This section focuses on the changes in physical health, measured in researches carried through by Staricoff (2003), Konlaan (2001) and Grape (2003). Konlaan describes a study (Konlaan et al., 2000, 316 – 319), that lasted two months and was organised to test hypohtesis about cultural participation and physical exercise. The 21 participants underwent a medical examination at the start and two months later. Participants were randomized (simple random sample) into four groups:

- culture group (5 participants), attended 1 cultural event per week)
- physical exercise group (5 participants), who did one physical activity per week
- culture plus physical exercise group (5 participants), attending two events, one of each kind per week
- non stimulated group (6 participants) who were not involved in any way.

Arterial blood pressure was measured, blood samples and a 24-h urine sample were provided by participants and Antonovsky questionnaire for `sense of coherence` was completed. Multiple regression analysis demonstrated a decrease in s-prolactin and in diastolic blood pressure due to cultural stimulation. Physical activity resulted in an increase in the HDL cholesterol level and in the ratio of HDL to LDL (low density lipoprotein).

Culturally stimulated group showed decrease in adrenocorticotropical hormone and prolactin levels, decrease in s-prolactin and in diastolic blood pressure (Konlaan et al., 2000, 317-318). In this study the specific effects of the fine arts were found. Writing about the main findings of the research, notes Konlaan, that specific effects of fine arts are irrespective of social networking, group interaction or attention effects. (Konlaan 2001, 60), thereby arts-impacts concerning individual personally.

Staricoff notes, that a thorough review of the literature including the latest medical findings was conducted for each area of research in order to establish and rightly interpret the relevant physiological and biological measurements (Staricoff 2003, 7).

Physiological and biological changes measured were:

- levels of blood pressure (High risk Antenatal Clinic and Day Surgery Unit)
- foetal heartbeat (Antenatal Clinic)
- heart rate (Antenatal Clinic and Day Surgery Unit)
- cortisol and Immunoglobulin A levels (Day Surgery Unit)
- cell counts (HIV/AIDS Clinic).

The impact of visual arts and /or live music was also measured by:

- length of labour in Maternity Ward
- length of stay in hospital in Trauma and Ortophaedics Ward
- amount of analgesics in Trauma and Ortophaedic Ward
- requirement for analgesia/anaesthesia in Maternity Ward
- amount of induction agents prior to anaesthesia in Day Surgery Unit.

Research by Grape, Sandgren, Hansson, Ericson and Theorell examined impacts of singing lessons. Impacts of singing appeared in following:

- heart rate variability increased during singing in professionals, whereas there were no changes in amateurs.
- serum concentration TNF-alpha increased in professionals after the singing lesson, whereas decreased in amateurs<sup>2</sup>
- serum concentration of prolactin<sup>3</sup> and cortisol<sup>4</sup> increased after the lesson in the group of men and vice versa for women

<sup>&</sup>lt;sup>2</sup> Tumor Necrosis Factor alpha (TNF-alpha) is a cytokine. The serum TNF alpha concentration increases in inflammatory conditions but also during the influence of psyhological stress (Steptoe et al., 2001).

<sup>&</sup>lt;sup>3</sup> Serum prolactin increases in stressful situations characterized by powerlessness (Theorell 1992).

<sup>&</sup>lt;sup>4</sup> Serum cortisol is the most frequently studied indicator of arousal. Serum cortisol increases in situations that demand energy mobilisation (Frankenhauser and Johansson 1986).

- oxytocin concentrations increased significantly in both groups after the singing lesson.<sup>5</sup>

Research by Grape et al., proved, that singing during a singing lesson promotes more well-being and less arousal for amateurs, than it does for professional, who seemed to experience less well-being and more arousal. (Grape, Sandgren, Hansson, Ericson, Theorell 2003, 65). Well-explained signification of every single variable in this study provides good basis for discussing on healthy impacts of cultural participation on the basis of appeared effects of singing lessons. In the introduction of the study, there is indication to the research by Konlaan, Bygren and Johansson, (2000), where it has been claimed that frequent participation in cultural activities may prolong life.

Results of the study show that singing lesson promotes more well-being and less arousal for amateurs and less well-being and more arousal for professional singers. On the basis of this study the impact of singing appears in changes of the psycho-physical status. More elaborated impacts of singing lessons depend on previous experience of singer. Cardio-physiological fitness (Grape et al., 2003, 65) of professional singers is connected also to psychological stress (TNF-alpha increased in professionals). Male singers are more stressed than female (prolactin and cortisol increased after the lesson in the group of men and vice versa for women. Effect appeared in both groups: in professionals and in amateurs. Increasing oxytocin gives evidence about experiencing pleasant situation, that was noticed again in both groups.

## 5.3.2 Arts impact on perceived health

Staricoff evaluated the effect of visual and performing arts in 8 units of Chelsea and Westminster Hospital. In addition the staff evaluation was carried through. The appropriate measurements were identified for each clinic (Staricoff 2003, 3).

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<sup>&</sup>lt;sup>5</sup> Oxytocin has role int he relief of pain and anxiety (Stock and Uvnäs-Moberg et.al.,1988) It has been shown that oxytocin increases in certain pleasant situations, with, or without tactile stimulation (Stock and Uvnäs-Moberg 1991).

Psychological changes such as anxiety and depression were evaluated using the Hospital Anxiety and Depression scale.<sup>6</sup> Patients were invited to complete specially designed scale before and after intervention of visual arts and/or live music. Psychological changes were measured in Medical Day Unit, Antenatal Clinic, Post-natal Clinic and Day Surgery Ward. The data was analyzed statistically (Staricoff 2003, 6).

In the research by Grape et al., the perceived health was evaluated in reports, written by participants of the singing lessons. On the basis of five analogue scales (VAS, sad-joyful, anxious-calm, worried-elated, listless-energetic and tense-relaxed), the information about perceived health was scored before and after the lesson. Amateurs reported increasing joy and elatedness, whereas professionals did not. However both groups felt more energetic and relaxed after the singing lesson (Grape et al. 2003, 68). Thereby one may conclude that physical variables measured report about positive impacts of singing and that perceived health-impacts of singing depend on previous experience of singer.

Research by Saarikallio demonstrated the integral connections of everyday musical activities to processes of psychological well-being. (Saarikallio 2006, 190). Saarikallio explored the psychological functions of music in adolescence and found that music is a framework for reappraisal of experiences and reestablishment of mental order, a part of personal experiences, well-being, health and quality of life. (Saarikallio 2007, 61; Laiho 2004, 13). Listening music enables adolescent's to regulate their moods<sup>7</sup>. According to Saarikallio the concept of mood regulation originates from the defence mechanisms based on the psychoanalytic tradition. (Saarikallio 2007, 14 – 15).

Mood regulation by music is related to positive experiences, writes author. The scale for measuring mood regulation by music (MMR) was developed on the basis of seven regulatory strategies: entertainment, revival, strong sensation, diversion, discharge,

<sup>7</sup> Moods are generally differentiated from emotions by their longer duration and lack of specific cause (Gross, 1998; Oatley and Jenkins, 1996; Parkinson et al., 1996; Saarikallio 2007, 89).

<sup>&</sup>lt;sup>6</sup> Zigmond AS and Snaith RP. The hospital Anxiety and Depression Scale. Acta Psychiatrica Scandinavian 1983, 67, 361-370.

mental work and solace (Saarikallio 2006, 188). 2000 questionnaire forms were sent to the schools (all 25 schools selected agreed to participate). The response rate was 76%. Survey included four measures of general mood regulation abilities, and questions about musical background, activities and preferences of the adolescents (Saarikallio 2007, 25). In the research about differences in adolescents use of music in mood regulation, the strategies, most closely related to positive emotional experiences appeared to be Entertainment, Revival and Strong sensation. Preferences for pop, rap and techno did not correlate with the MMR scale, but they did correlate with the subscale of Entertainment (Saarikallio 2006, 958). Music not only aroused thoughts and feelings, but also provided a framework for reflecting them and served as a surface onto which personal experience could be projected. (Saarikallio, Erkkilä 2007, 100).

Importance of listening as a means for mood regulation for those who don't play instrument is noted by the author of research. (Saarikallio 2007, 32). Findings of the study proved direct connection between music-experience and well-being: "Experiencing different kind of music develops ability to reflect thoughts and feelings which may interpreted as part of the perceived health, but also as adaptation skills", writes Saarikallio. Direct impact of music on human being and on his health is widely used also in arts therapy. Here the approach was different as research by Saarikallio aimed to increase understanding about affective experiences of music in every day life (Saarikallio 2007, 19).

# 5.3.3. Arts impact on social health

Research by Konlaan (papers I-V) investigated the impacts of arts and culture through three surveys. In the first survey (Paper I, November 1969) people were asked if they have any leisure time activity (Konlaan 2001, Paper I: Konlaan, Theobald, Bygren p. 5). In the second survey (Paper II, 1982-1983) the attendance index, a reading index and a music-making index was used (Bygren, Konlaan, Johansson 1996, 1578). In paper III seven independent variables were measured (attending cinema, theatre, concert, museum, art exhibition, church service or sports event). (Konlaan, Bygren, Johansson 2000, 175).

In Paper IV the cultural attendance index, constructed from visits to cinema, theatre, concert and live music performance, museums and arts exhibition to test the hypothesized link. (Johansson, Konlaan, Bygren 2000, 6). In the review of related literature of his research, writes Konlaan, that culture is a very broad subject whose delimitation is difficult, if not elusive, therefore authors of the thesis have limited themselves to the following cultural attributes in their studies: visits to cinema, theatre, dance, live concerts, art exhibitions, museums, libraries, religious sermons or sporting events – all as a spectator and reading and making music. These were chosen as measures of exposure to the possibility of having experiences that might influence health and wellbeing positively (Konlaan 2000, 25).

Pulkkinen and Metsäpelto examined extracurricular activity participation in middle childhood. Measured variables in this study were socioemotional behavior, school achievement and participation in activities. Socioemotional behavior was measured in assessments of *internalizing problems* (consisted from 6 items for *depression* and *anxiety*), *adaptive behavior*, consisted of 11 items for *aggression*, *hyperactivity-implusivity* and *inattention*) and *externalizing problems*, consisted of 7 items for constructiveness, compliance, and socially active behavior). School achievement was measured in assessment of academic attainments, that consisted of three items assessing reading, writing, arithmetic and in assessment of academic working skills, that included three items measuring *persistency*, *concentration* and *carefulness* (Pulkkinen and Metsäpelto 2008, 8).

Research by Liikanen draws attention to demand for arts and cultural activities in healthcare units of the hospitals. In 1999 the questionnaire was sent to 356 healthcare units in East-Finland. Questionnaire was answered by 126 healthcare units. The most cultural activity in those health care units was hearing the music and crafts activity. Memory circles were organized in 30 old people's homes and in 5 bed-units of the healthcare centers. Dance club was organised in 12 old people's homes and in 3 homes of disabled people. Crafts-circle gathered in 35 old people's homes, in 11 homes of disabled people, in 6 bed-care units and in 6 psychiatric hospitals. Theatre-visits were organised in 17 old people's homes and in 16 homes of disabled people, in one orphanage and in one home of schoolchildren. Cinema was in 5 old people's homes, in 3 psychiatry hospital

and in 2 units of disabled people and in one bed-unit of the healthcare center. Visiting the concert was organised in 15 old people's homes, 13 units of disabled people, in twosome orphanages, in 5 units of psychiatric care and in one bed-unit of the healthcare center during the year 1999. Visiting of art exhibitions was organised almost in like manner. In occasion of the festive events and celebrations the artists, orchestras, choirs were invited to healthcare units. Meetings with writers were rarely organised (Liikanen 2003, 72).

Liikanen provides comprehensive analysis of the treal situation in hospitals in East-Finland. Table of cultural activities and celebrations, organised during the year 2001 Liikanen 2003, 134 – 135) give evidence about cultural activities in four health-care units. List of artworks exposed in healthcare units shows, that artworks are exposed in hospitals and social care institutions (Liikanen 2003, 191 – 194). Significance of music appears to be important for patients. For example patients tell, that music makes them remember. Despite most of the events organized or visits of artists were music-related, the possibilities to choose among various artstyles seems to be quite modest. In connection to the postivie impact of experience, the poetry, painting, reading, cinema, crafts appear was used as method of cognitive therapy (Liikanen 2003, 115 – 120). Music or literature liberated, provided emotions and experiences, that helped to carry over everyday-life and disease. Thereby one may argue, that artistic experience in health-care is interpreted as method for therapy and source of energy. Liikanen notes, that distingushing of the health-impacts from abovedescribed experiences was not manageable nor pursued in her interviews. Being together and getting experience of doing something in connection with cultural activities provided to patients opportunity to experience joy and desired closeness of others (Liikanen 2003, 121). Arts and cultural experience in hospitals was perceived as stimulating moment or convivial entertainment in the middle of daily routine (Liikanen 2003, 130). Celebrations of the traditional festivities reduced the exterior distinctive lines and status between patients and personnel of the healthcare units. People had there opportunity to renew friendship- or family relations. Unifying sensation and integrative impact of festive events appears when looking the photos taken at events. (Liikanen 2003, 139). There were theatre-, dance or singing performances in the programs of the festive events. Patients of the health-care units got opportunity to perform. Liikanen describes celebrations in healthcare institutions as aesthetic category and self-initiative cultural activity (Liikanen 2003, 39). Impact of culture appears to be deliberating: "Celebrations liberate people to sing and dance together. Cultural activities and festive events were perceived as signal of regardful attitude and valuation of human being, generating trust for itself and society"(Liikanen 2003, 156). Beside several emotions and experiences, described by patients, an opinion by artist explains the role and position of arts in healthcare units: "Arts don't heal, but through art can everyone find opportunities" (Interview 28.11.2000; Liikanen 2001b, 2003, 38).

Summarizing the section 5.3: Relation between arts and health has been evaluated in different ways, using quantitative and qualitative methods. Reviewing the results of the physical, biological measurement, the importance of self-reported or perceived health occured to be important source of information as complementing to the results of physical health measurement. There seems to be certain connections between physical and perceived health of individuals as well as between perceived health of individuals and social health of community.

# 5.4. How the researchers suggest to develop the current methods?

Authors of all researches, examined in current master's thersis, suggest further research on their field of studies. Staricoff suggests integration of arts into the healthcare institutions (Staricoff 2003, 4). Intersectoral collaboration between arts, social- and healthcare has been suggested by Liikanen in her research (Liikanen 2003, 156). Konlaan suggests large community based trials to evaluate the effect of the cultural offers from the public health perspective (Konlaan 2001, 71). Authors of one research argue, that partly confirmed hypothesis about beneficial impacts of the singing lessons indicates to the possible implications for public health promotion if the hypothesis, tested, can be proved (Grape et al., 2003, 66, 72). Pulkkinen and Metsäpelto suggest to use activity measures that take into consideration the complex nature of activity participation (Pulkkinen/Metsäpelto 2008, 15).

In suggestions for further research writes Konlaan, that studies designed to increase levels of participation in cultural life could possibly reduce social exclusion and increase community health. Konlaan suggests large community based trials to evaluate the effect of the cultural offers from the public health perspective could help in revealing the causal direction. (Konlaan 2001, 71). Konlaan, Bygren and Johansson conclude, that this is probably a fruitful line of research and that the prognostic importance of changes in cultural stimulation should be investigated and experiments initiated for verification. (Konlaan et al., 2000, 178).

Study by Saarikallio was motivated to promote knowledge about music's emotional meaning (Saarikallio 2007, 35). In concluding comments notes Saarikallio, that 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 (Saarikallio 2007, 35). Author emphasizes importance of dialogue between empirical findings and theoretical concepts for further inquiries of music-related mood regulation (Saarikallio 2006, 958).

Staricoff brings example from an article by Smith, who claims that: "health comes from adaptation to and acceptance of circumstances." (Smith 2002, 325; Staricoff 2002, 5). Hence one may argue that health depends on ability to perceive the connections between different social and psychological processes and on capacity to manipulate with those connections, but also on acquired, interpreted and implemented knowledge, necessary for developing of the ability to adapt. In conclusions of the research in Antenatal Clinic, writes Staricoff: "It would be very important to encourage a more extensive research involving a larger number of patients in a randomised study." (Staricoff 2003, 14). According to Staricoff, could findings of the study in the Trauma and Ortophaedic Ward have an effect on the management of elective operations with potential repercussions in waiting lists; reduction of drugs consumption and increased patient and staff satisfaction. (Staricoff 2003, 24).

Discussing on possible reduction of drugs consumption, mentioned by Staricoff, one may argue about predictable changes in health-care sector towards more culture-oriented forms of collaboration whereas cooperation with drug-producers decreases. Here appears the changing structure of economy, described in introduction of current master's

thesis. Staricoff brings forth also relevance of integration with the visual and performing arts into environment of hospitals and recruitment of staff (Staricoff 2003, 29).

Liikanen discusses about social context of the integration of art and cultural activities into social- and healthcare. She argues that the field of art and culture can meet with the field of social and health care, if attitudes towards other people's professions and opportunities to interact become more equal. (Liikanen 2003, 11). Discussing about attitudes, one may argue, that including the disciplines related to professions of both healthcare and arts into curriculum of the studies could provide understanding about professions and more equal opportunities to interact. Considering the concept of artistic experience from the viewpoint of equality may be problematic. Argumentation to this could be brought on the basis of two theories on the field of social sciences and aesthetic experience.

Simmel describes equality as subjective differences in objective relationships of domination. Subjective differences should altogether be eliminated from the characteristics of the social structure, which ought to be regulated as if these differences did not exist (Simmel 1909). On the basis of this theory one may argue, that in order to gain more equal opportunities to interact in healthcare institutions, should subjective differences be possibly eliminated from the social structure of healthcare institution including the particular structure of artistic event there. According to Shusterman, is aesthetic experience evaluative, phenomenological, semantic and demarcational dimension (Shusterman 1999, 2000, 17). Considering aesthetic experience to be demarcational as it has been pointed by Shusterman, one may ask if elimination of differences from the structure of artistic event is relevant as effect of the aesthetic experience lies in its difference from daily routine.

Thinking more thoroughly about integration of the arts into the field of healthcare, the social meaning of art should be examined. Art may be viewed as originating from life in following explanation by Georg Simmel, who writes that art and play are forms that were originally developed by the realities of life. Simmel argues that arts and play take from realities only what they can adapt to their own nature, only what they can absorb in their autonomous existence. Fully established art is wholly separated from life (Simmel in Wolff, 1950, 42).

Study by Liikanen is looking for the possibilities to reunify the art and life, which have been separated due to the processes of the independent formation of the art, during which art became fully established and separated from the life. One may ask here if there arts-like activities or not-fully established art could be more successfully integrated into field of healthcare? The other question is, whether the emotional experience of the activity is as effective as by experiencing the fully-established art as real impact of art depends not only from the performer but also on the previous experiences and expectations of the audience.

Liikanen is certainly right when she brings forth the human right to artistic experience and close connections between life and art. Simmel writes that where arts are emptied of life, they become artifice and empty play. There remains question, how to create balance between art and life so, that complete equality could be avoided and harmony experienced. Shusterman writes, that fine art divides society and communicates that division (Shusterman 1992, 156). Here one may ask about possible impacts of that division in healthcare institution and on patients particularly. Society deprived from fine arts may be discussed as society where communication possibilities are limited. Thereby one may ask, by what is that kind of society communicated and divided. On that field one may find example from experiments with isolated people and situations like that are proved to be not favorable for deevelopment of human being.

Not less important is to investigate the position and identity of artist in healthcare institution. One may consider artist as collaboration partner for healthcare institution as well as in service of patients. Further studies on the field of arts and healthcare could help to find answer to that question. It seems that model aspired by Liikanen is successfully implemented by Staricoff (though in the formation of the project 1999 - 2002). Staricoff examined the field of healthcare and measured health, Liikanen examined the arts impact on perceived health and broader social context of the institution of healthcare. On the basis of the results of the research by Liikanen, the lack of appropriate human and financial resources, allocated for cultural events and artistic experience in hospitals and health care units appears to be one of the largest problems (Liikanen 2003, 155). In conclusion of the research in healthcare units of East Finland, writes Liikanen, that arts, cultural activities and celebrations were perceived as signal about care and appreciation,

which delivered faith to one and society (Liikanen 2003, 156). The largest problems, found by Liikanen could be solved through certain changes in public planning. The lack of human resources as it has been indicated by Liikanen earlier (Liikanen 2003, 155) could be improved by further investments to the arts education on the level of public planning. Financial resources for arrangements of artistic events in healthcare may be invented through broader long-term processes in society: decreasing drug consumption, expanding creative economy and improvement of life-quality in whole society.

Current discussion about health-impacts of the arts indicates to the further inquiries about wider and long-term social impact of arts. In the researches examined, the healthy impact of arts appeared in the individual's health, that is measurable by certain variables and easier to control than community health. Presuppositions for better social health were noticed in the research where extracurricular activities were associated with child socioemotional and academic outcomes (Pulkkinen and Metsäpelto 2008, 14). Authors of the research about singing impacts write: "If it can be proved that amateur singing promotes wellbeing, it would of course have important implications for public health promotion." (Grape et al., 2003, 66).

In conclusion of this chapter one may argue that health and social impacts of culture is promising and fruitful area of studies providing information for intersectoral public policies.

## 6. DISCUSSION

Following discussion is inspired by two articles, focused on art's impacts and published in the International Journal of Cultural Policy. Considering the researches, examined in current master's thesis, the articles about health and social impacts of arts and culture are relevant as reflecting the broader context from the viewpoint of social sciences and cultural policy. Merli's critical review about Matarasso's "Use or Ornament" (1997) and Belfiore and Bennet "Rethinking arts impacts" (2007). Articles

used in discussion are available at the electronic database of the International Journal of Cultural Policy.

Matarasso argues, that arts produce impacts as complex as the human beings who create and enjoy them (Matarasso 1997, 14). Final report of the research by Matarasso describes the aim of study as interest to find out, how participation in arts activity has changed people's lives, if at all (Matarasso 1997, 14). On the basis of several previous researches on the area of arts impacts, writes Matarasso 50 hypotheses about arts impacts.

According to Merli, are the hypotheses, written by Matarasso, expressed as relationships between abstract concepts which are not observable, nor measurable (Merli 2002, 108). Merli argues, taht Matarasso has ruled out possible negative impacts and not devised the questions in relation to the hypotheses (Merli 2002, 109). Here one may suppose, that effect of cultural participation, evaluated by Matarasso, had longer effect on people's life, than it was possible to apprehend at the moment when evaluation was carried through. People, who participated in the project, could be asked to bring forth effects of their participation many years later as the indirect impacts of artistic participation may lie inside of human being and be not visible soon after participation. This kind of impacts may still influence indirectly. Non-visible impacts may seem non-measurable due to the lack of appropriate measures or non relevant time-scale. Connections between social developments and arts education may be apprehended during longer period than it is usually possible to examine. Their real impact may appear in other social areas than it has been expected. Example of that could be found on the field of social work and preventive activities.

Considering the broader impact on community, the reverse situation could be taken as potential reflection of the impacts, as participants of the project were engaged to cultural participation and were thereby saved from possible negative impacts or habits. Matarasso sees the change participant's world of thinking as result of the participation in the arts: "The greatest social impacts of participation in the arts – and the ones, which other programmes cannot achieve – arise from their ability to help people think critically about and question their experiences and those of others, not in a discussion group, but with all the excitement, danger, magic, colour, symbolism, feeling, metaphor and creativity, that the arts offer. (Matarasso 1997, 90).

Merli claims, that research, carried through by Matarasso, has no internal validity (Merli 2002, 111). According to Merli, the argument "arts do have social effects" (which therefore just need to be measured) is far from substantiated (Merli 2002, 115). At first should the effects be noticed, aknowledged and understood, only after that could we talk about measuring them. Due to the lack of studies on that area, the timeline of impacts is not determined: one cannot claim the extent of impacts nor the exact moment, when exactly is the right time to measure arts impacts or how many years after the participation was experienced. Three preconditions, mentioned above (noticed, aknowledged and understood effects) are reachable mainly in experiencing arts and participating as creator and (or) audience.

In further argues Merli, that in the report by Matarasso, the application of costbenefit analysis might show, for instance, that the value of benefit, produced by participatory arts activities is higher than the value of the value of the benefits produced by other types of intervention with the same costs (Merli 2002, 112). According to Matarasso, can arts projects produce impacts out of proportion to their cost (Matarasso 1997, 87). Merli argues, that such impacts are not proved to exist (Merli 2002, 112). Here seems to be problem of different languages or lack of appropriate tools used for measuring the arts impacts. Arts may reduce social problems, but they may also open people's world of thinking, understanding and analyzing the situations, that by some political interests are considered not relevant for the scope of particular project as the reasons of the problems are more complicated than they have been expected to be. Discussing arts impacts, the viewpoint of philosphy of art is also relevant to consider: Shusterman argues, that artistic creation is itself a powerful experience which shapes the artist as well as the work (Shusterman 1992, 54). Participants are experiencing the art during their participation process, and their creative activity becomes part of the artistic production, thereby their participation could be viewed as artistic creation, which is according to Shusterman powerful experience, shaping the participator. Thereby the process of participation has impact on human being.

According to Merli, is involvement in participatory arts a cultivated cultural need and not primary need (Merli 2002, 17). Value of the benefit of the arts may be inestimable, when to consider, that someone may have put aside feelings which she

described as suicidal (Matarasso 1997, 75). It seems to be methodological quesiton how to measure the powerful experience as value of benefit suggested by Merli. According to Merli, the predetermined indicators are methodological tools not suited to the task discovering the unpredictable results of activities (Merli 2002, 111). On the basis of theories about artistic experience as well from the viewpoint of pragmatist aesthetic as well one of analytic aesthetic, it may be argued, that arts in healthcare can be planned on macro level but unpredictable consequences as well as positive as neutral and negative may appear on micro level as particular effect of artistic experience depends on every individual personally. In other words: the results cannot be completely granted on micro level as there exists variety of preferences on the area of arts. From the other hand, here lies the potential for multivariety of approaches and strength of the area on the level of management of artistic activities in healthcare institutions. Planning the events in healthcare units is likely not to fall into routine as there is always possible to gather opinions, proposals and ideas, asking from patients, which kind of music or painting they would prefer this time. Considering the macro level of the area, the political questions concerning planning, funding and intersectoral collaboration appear to be actual. It is important, that decisions on public planning will be made on the basis of explorations and suggestions of the multidisciplinary scientific researches.

Discussing projects like Use or Ornament, carried through by Matarasso, the mission of cultural activities seem like bringing the water to thirsty people, but one has to take care of wellspring at the same time. Creating the conditions for synergy of education and culture may be one way to develop socio-educational processes. Here the sociopolitical context, described by Wolff earlier in this master's thesis, appear. As the amount of pupils, engaged into arts education, is relatively low, it may have impact on the area of pubic policies. Thereby the reason of imaginary misunderstanding of the arts impacts on the level of public policies (see quotation by Sava at page 14 in this master's thesis), may be related to earlier artistic experiences and education of those who decide over public planning.

Relatively unmeasurable effects of arts and culture as well as variety of impacts are continually under consideration as it has been proved also by Belfiore and Bennet in their article "Rethinking the social impacts of arts" (Belfiore, Bennet 2007).

Belfiore and Bennet discuss in their article on postive and negative traditions of the arts impacts. According to Belfiore and Bennet, was Plato the first creator of cultural policy and positive tradition of thinking about the impacts originates from the theory created by Aristotle who in his *Poetics* described cathartic effect of the drama. In their article bring Belfiore and Bennet several examples about historical cases on the basis of which they claim, that arts impact may be as questionable or negative. Authors of article draw attention to the negative tradition of arts impacts, which they claim to be as robust as positive and even the more robust of the two (Belfiore, Bennet 2007). One may still argue, that most of the negative phenomenas have been part of the political combinations of the totalitarian systems. Explanation to that may be also relatively limited access to the education (including arts education). In other words, there was too much policy and less culture in those cases, where the negative impacts, described by Belfiore and Bennet, appear. Shusterman argues, that Plato condemned art as deceptively unreal partly because he feared its power to penetrate and contaminate the human soul and thereby corrupt the proper action. (Shusterman 1992, 53).

During following centuries the balance between policy and culture has been changed in favor of culture. There is still space to go further towards equilibrium of two notions comprising one concept. After reading Belfiore and Bennet one may understand that arts "doings" are in great amount independent on human being who may influence the "doings" either to positive or negative directions. Thereby one may speak also about cultural democratization in the meaning of human impact on arts. Human influence on arts, well described by Belfiore and Bennet, gives evidence that arts capacity to "do", depends not only on artist or participator but in great extent on the previous experience and education of the audience, also on political interests and context at every particular case, on previous experience (or lack of relevant experience) of the audience, referring to MacCarthy and Guetzkow: the individual-level arts impacts are relevant for the purposes of community impact studies to the extent that the impact of the arts on individuals aggregates to the community (MacCarthy 2002, Guetzkow 2002, 4).

Guetzkow asks, how to elaborate the causal mechanisms through which the arts have an impact and how to bring forth the intervening factors that connect a particular arts activity with a specific outcome? (Guetzkov 2002, 2). He discusses the mechanisms

through which Kevin MacCarthy's typology of the mechanisms of arts impacts. According to Kevin MacCarthy, arts impacts appear in two levels: on individual level and on community level. The three types of individual impacts are material (mainly health), cognitive/psychological and interpersonal. Arts impacts on community level are according to MacCarthy 'roughly homologous to individual-level ones, economic, cultural and social' (MacCarthy 2002). Thereby MacCarthy sees arts impact on health as individual impact, homologous to community. One may ask whether the health-impact of the arts is wholly measurable considering the unmeasurability of the arts. (one may measure the health, but not the arts). Measurability of the whole health is continually area of dsicussions.

Guetzkov writes about subjective accounts of people involved in the arts programs or audience members: the arts improve individual health, psychological wellbeing, skills, cultural capital and creativity (Guetzkov 2002, 10). He asks whether the impact can be *measured* solely or largely on the basis of these accounts, especially considering that participants almost always self-select into participation. (Guetzkov, 2002, 20). One may presume, that relative unclarity might be reduced throug research about social impacts of arts education and methodology could be invented in collaboration between experts of different areas: arts, education, health and social sciences. Thinking about social capital as part of the public health, one possible way to map the field of arts impacts, could be to collect some numbers, measuring the impact of the artistic event:

- number of new contacts started at the artistic activity and might lead to further projects
- number of renewed contacts
- number of the ideas inspired by certain work of art, experienced at the artistic event
- number of participants of the artistic event (people, who participated at artistic event could be considered as being outside of the area of possible negative impacts of the surrounding society during their participation at artistic event.
- number of other impacts, appeared during the artistic event (here should be noted definitely all impacts, also negative in order to create broader understanding about arts impacts.

Here is important to note, that also past experiences of participators could be taken into account. Supportive argument to the abovemdescribed could be health-concept by Honari, described at p. 9 in this master's thesis. Honari argues, that health of human being is relation of needs and aspirations; daily, past and present. (Honari 1999, 91).

In addition to the positive impacts provided by artistic experience, should effect of avoided negative impacts be reckoned into profits of cultural activities. At practical level means that taking into account things, that are relatively invisible, but probably predictable on the basis of sociological theories.

Negative impacts of arts described by Belfiore and Bennett give evidence about two-way impact of arts that makes possible to manipulate with people. Purposeful manipulation may be less successful and negative impacts less likely or even avoidable in case the individual has possibility to make acquintance with history and main theories of the art before the manipulation starts. Making acquintance with art means to learn and practice experiencing that kind of art, which is safe from so called negative experiences. This kind of learning process enables to develop critical thinking, helping individual to make one's choose of artistic experience, also to use art in mood regulation (Saarikallio 2007).

Summarizing current chapter, it could be presumed, that arts impacts could be discussed further in broader context and analyzed during longer period. Explanations of the psychoneurological processes described by Konlaan could bring clarity to the discussions about what arts "do". Interdependence between social capital and cultural participation has been examined by sociologists (see chapter 2.3 in this master's thesis) who indicate to the certain social impacts of arts and culture. Area of social impact studies is still relatively new as it has been noted by many scientists.

#### 7 CONCLUSIONS

Researches examined in current master's thesis explored the health and social impacts of arts and culture. Relation between health and culture has been one of the central areas of discussions. Results of the researches indicate to the arts impacts on three

levels: individual, social and political. Impacts of arts and culture appear on in different lifestyles of people and are becoming important part of care in hospitals and social care institutions. Considering the human impact on arts from the viewpoint of participator, the previous experience and education of patients may influence the result of expected cosiness derived from arts. Soon after the preliminary arrangements and resources allocated for appropriate artistic management for healthcare institutions, one may argue about question of taste and different preferences on art-styles, authors and artists.

All researches analyzed provide information about healthy status and show possible ways to health-enhancement. Beside direct influences of arts and culture, explored in the abovementioned researches, different indirect impacts appear. Results of the researches indicate to the potentiality of the interdisciplinary research and may be discussed also as building the bridge between healthy and unhealthy areas of society, expanding the traditional area of health-science. Information about unknown point at which a state of health no longer exists, but where it could be easier to retrieve, may be essential for further health studies. Cultural participation as potential source for social interaction and social capital, may have impact also on individual's health behavior. Cultural participation could be thereby understood as metafactor influencing health.

On the basis of researches examined in current master's thesis one may argue, that live music and performing arts induce several positive changes. More detailed opinions of patients are not considered to be appropriate to gather in this research, whereas measured health gives clear evidence about changes in health status of patients. Remarkable is also, that research does not provide information about artistic creations used, as unfortunately there is not mentioned, which kind of music and performing art was included into hospitals. In connection to the complicated central concepts of the research area, the question of methodology appears to be actual.

Researchers of arts impacts have invented different qualitative and quantitative methodologies, indicating that the relation between health and arts could be examined in collaboration between different sciences.

Many researchers have pointed that concepts of health and art are complicated to define. Multidisciplinary reseraches and collaboration between researchers of different areas might open additional sources of information, on the basis of which the broader

understanding of concepts could expand potentiality for further elaboration both concepts of health and arts. Question of methodology appears to be one of the most important questions on the current phase of research area on arts impacts. Unpredictability could be viewed as potentiality in terms of "our creative diversity" and indicators could be elaborated, complemented with additional variables, reflecting the impacts from the multidimensional scale of time and space. In other words: to take into account the potential impacts of the process of participation on further life of participator and on society broader; also possible reverse impacts: exclusion from cultural participation may have certain results which may not be favorable in relation to long-term policies concerning society development. Thereby could policy of social inclusion carried through in possibly extensive access to cultural participation including arts education. People's potential cultural needs should be taken into account in public planning in its preliminary phase. Social planning lead by cultural policy could provide broader choosing possibilities for individuals as well to avoid some negative impacts related to social exclusion, poverty and passive life.

All researches, examined in current master's thesis, consider culture to be important factor, influencing health. Interdependence between health and culture appears to be relatively in favor of culture, as healthy person without cultural output is rarely described in researches examined in current masters thesis, whereas unhealthy status could be improved in cultural experience. Investments into education and extracurricular activities are likely to promote health in society as well as to improve the quality of life of individuals, increasing the diversity of emotional experiences, which contribute to the socioemotional behavior and self-regulation skills.

Researches examined in current master's thesis indicate to the relevancy of further explorations in collaboration of health-science, education-science, social sciences and arts. Sociological approach to relations between different impacts examined leads to broader methodological discussions. Considering the field of sectoral policies, the role of cultural policy appears to be one of the main contributors to the sustainable society-planning. Further research about social impacts of arts education could provide more elaborated information about health and social impacts of arts and culture.

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Research	Aim of the research	Health	Arts and culture	Research method	Results	Policy
Boinkum Benson Konlaan	The purpose of this study was to investigate the	equally broad as the	Culture has been occasionally described as	Data collected through three surveys – the study of Met and Unmet Needs for Medical and	Those who rarely participated in cultural	Implications for Public Health practice: If there is a causal link
Cultural Experience and Health.	relationship between health and participation	is state of complete	something organic (Benzon 1996, Konlaan 2001, 16).	Social Service (REBUS) in	events (unspecified), had a 57% overrisk compared to those who often did so.	between culture and health
The coherence of Health and	in cultural life through the fine arts (music,	1	Konlaan refers to John	1969 – 70 (n=7805), the Swedish Survey of Living	Change in the utilization of	outcome, then it is important for public health to broaden
leisure time activities.	cinema, theatre, drama, museum, visits etc.)	the absence of disease or infirmity. (WHO 1946).	Dewey's theory about experience and aesthetics	Conditions (ULF) in 1982 – 1983 (n=12982) and a Panel	culture covaries with a change in perceived health.	the access for cultural participation to all groups in
Umeå 2001	or having leisure time activities (Konlaan 2001, 7).	Konlaan wanted to control for social circumstances included in the WHO concept of health as well.	of art. He explicates that art does not provide us with momentary escape from this world, but instead	survey of ULF 1982/1983 – 1990/1991 (n=3793), as well as data from an experimental study of stimulation by the fine	Stimulation by the fine arts lowered blood pressure as well as the levels of both adrenocorticotropical	the population irrespective of their age, sex, place of birth, place of living, income level, short or long
5 original studies:	The overall research interest was to investigate whether	Survival was outcome variable in Papers I, II and III, while self-reported (or	takes us to a deeper understanding and appreciation of the world	arts and light physical exercise (n=21) were used to explore the hypotheses that	hormone (ACTH) and s- Prolactin.	term education. This is in line with the advice by the European Task Force on
<u> </u>	cultural experience covaries with health and to test the stimulation	perceived) health was outcome variable of interest in Paper IV and	we are in.  He concludes that whenever there is	participating in cultural life had a beneficial effect on health. Statistical methods for	Findings of the researches show close links between health and being active	Culture and Development. (The European Task Force 1997).
	effects of fine arts on	health determinants were	coalescence info an	data analyses were chi-squared	consumer of culture or	And the United Nations
	health determinants.	variables of interest in	immediately enjoyed	test, logistic regression models	having leisure time	declaration number 27 of
	(Konlaan 2001, 31).	Paper V (Konlaan 2000,	qualitative unity of meanings and values drawn	and the Cox proportional hazard model (Konlaan 2000,	activities. The result is also	Human Rights and the United Nation's
		29).	from previous experience	,	suggestive of specific effects of participation in	Educational, Scientific and
		The association between	and present circumstances,		certain cultural activities	Cultural Organization's
		self-reported health (as	life then takes an aesthetic	The Cox Proportional hazard	and health outcome.	(UNESCO 1995) advice to
		predictor) and mortality	quality (Dewey 1934,	model (Cox and Oakes 1984,	(Konlaan 2000, 8).	Governments. Several
		and predictor in the use of	Konlaan 2000, 26-27).	Kleinbaum 1996) was used to		countries have already
		Physician services.	TEI 1:1:4 C 41	analyze the data in Papers I, II		included widening of
		Coherence between self-	The ability of the art			cultural participation among
		rated poor health and low education level as	process to act on ones emotional responses makes	relative risks (RR) of mortality in terms of background		their goals for the politics of culture (Staten's Kulturråd
		prediction of mortality.	art a useful therapeutic	variables and 95% confidence		1997)
		(Konlaan 2000, 30).	medium (Johnson 1987,	intervals (CI).		(Konlaan 2000, 70).
		Baseline health was	Rubin 1984, Konlaan 2000,	Cross-sectional and		Suggestions for further
		determined by the history	20).	longitudinal transitional		research: More observations
		of registered in hospital		models were used to analyze		on the importance of
		stays. (Konlaan 2001, 46).	The art absorbs our minds	data in Paper IV.		cultural supply and budget
			consciously or	The multiple logistic		in the community are
			unconsciously to produce a	regression (Armitage and		needed to test the hypothesis
			distraction and relief from	Berry 1987) statistic procedure		of a community level effect of culture on health.
			tension and stress (Howard 1990; Hathorn 1995	was used to analyze data in Paper V		Large community based
			Konlaan 2000, 63).	(Konlaan 2000, 43 – 44).		trials to evaluate the effect

			Art affects arousal through three different properties. (Winner 1982) Kreitler and Kreitler (1972) explicates that the perception of works of art affords vicarious fantasy gratification for unsatisfied wishes in a sublimated socially accepted form. One more explanation proposed by Kreitler and Kreitler (1972) is from the subject of the theory of tension reduction. They contend that through art experience, we evoke some kinds of variegated tensions witch in turn, tend to absorb and combine with less diffuse residual tensions in the spectator. The specific tensions are resolved through some other aspect of the art input. Resolution of the specific tensions implies relief also for the diffuse tensions with which they have combined. (Konlaan 2000, 64).			of the cultural offers from the public health perspective could help in revealing the causal direction.  Studies designed to increase levels of participation in cultural life could possibly reduce social exclusion and increase community health.  More studies on the possible mechanisms on the linking of culture and health could make interventions more effective.  (Konlaan 2000, 71).
Paper I	Paper I	Paper I	Paper I	Paper I	Paper I	Paper I
Konlaan B.B., Theobald H., Bygren, L.O. Leisure time activity as a determinant for survival: A 26-year follow-up of a Swedish cohort. Department of Social Medicine, University of	To investigate if having unspecified leisure time (pastime) activities covaries with survival. (Konlaan 2001, 31).	Health as physical, mental and social wellbeing. (Konlaan, Theobald, Bygren 2001, 5). Irrespective of whether leisure time activities are causal determinants of health or health is a prerequisite for taking full part in society, the interaction is a challenge for Public Health. The first question is whether the	Cohesion between health and leisure time activity (Konlaan, Theobald, Bygren 2001, 3). Emotions (directly and not through ones experience of wellbeing) by influencing the immune system, could protect health through a bidirectional communication between nervous and immune system components (Part CB	The postal questionnaire sent in November 1969 included questions on the individual's physical, mental and social constraints. A random sample comprised of 7805 individuals. The independent variable was 'yes' or 'no' to the question: 'Do you have any leisure time activity?' The dependent variable was mortality, irrespective of cause of death. The covariates were age, sex,	More than two thirds of the respondents (70%) reported that they had some leisure time activity. The non-response proportion was 7%. A bivariate positive correlation analysis method revealed a high correlation between the independent variable. Having leisure time was a determinant of survival in the statistical	The interpretations of our finding could be that the stimulation from leisure time activities has such positive effects on health that it influences survival. (Konlaan, Theobald, Bygren 2001, 9). Further studies should specify the pastime

Umeå, Sweden and Statistics		sum of their influence	1998, Maier S, Watkins L	and health and alcohol	sense at most up to 65	activities (Konlaan 2001, 2).
,		results in coherence	1998).	consumption. Baseline health	years of age. (Konlaan et	activities (ixoniaan 2001, 2).
Sweden, Department of		between enjoying good	The mechanisms for these	was discounted.	al., 2001, 6).	
Welfare- and Social		health and having leisure	actions have been explored	The SAS software was	Alcohol consumption was	
Statistics, Stockholm,		time activity. (Konlaan,	in	employed to analyze the data.	positively correlated with	
		Theobald, Bygren 2001, 2).	psychoneuroimmunology	The Cox proportional hazards	having leisure time	
Sweden.		According to theoretical	(Ader R 1995, Watkins AD	model was used to estimate the	activities in bivariate	
		considerations, stress or mood-related and	1994) and brain plasticity research (Kolb B 1995).	relative risk of mortality.	analysis. (Konlaan et al.,	
		immunity-related diseases	Environmental stimulation	Correlation between questions was analyzed with gamma	2001, 9).	
		are believed to diminish in	effects the hypothalamic-	statistics. ((Konlaan, Theobald,	The conclusion was that	
		incidence and severity as a	pituitary-adrenal axis	Bygren 2001, 5-6).	having leisure time	
		result of environmental	(HPA-axis) and may have		activity, unspecified	
		stimulation. Infectious	a bearing on stress-		covaried with health.	
		diseases, neoplasms,	responses and survival or		(Konlaan 2001, 2).	
		autoimmune diseases,	proliferation of new brain			
		depression, anxiety, suicide, hypertension,	cells in the hippocampus (Nakamura H 1999,			
		obesity and Alzheimer	Eriksson P 1998,			
		disease are among those	Kempermann G 1998).			
		mentioned in the literature.				
		(Konlaan, Bygren,				
		Theobald p.4).				
Domon II						Paper II
Paper II	Paper II	Paper II	Paper II	Paper II	Paper II	
Lars Olov Bygren, Benson					T 1	Bygren, Konlaan and
Boinkum Konlaan, Sven-	The purpose of this study was to investigate if	Cultural activity might be	Attendance at cultural	A simple random sample was drawn from 15 918 people	In total, 6301 men and 6374 women aged 16 – 74	Johansson conclude that this
, and the second	participation (in a more	thought to increase resistance to a broad	events may have a positive influence on survival. The	aged 16 – 74 years. Of them	years at the interview in	is probably a fruitful line of
Erik Johansson.	restricted sense) in	spectrum of diseases or be	mechanism for a positive	85% were interviewed by non-	1982 – 1983 were followed	
	cultural events covaries	the impetus to start dealing	effect could perhaps be that	medical interviewers between	up for survival until the	research.
Affendance af cilifiiral	with longevity in the	with problems (Bygren,	it is inspirational for	1982 and 1983 in the Swedish	end of 1991. Influence on	Long term follow up large
	population.	Konlaan, Johansson 1996,	handling everyday social	annual survey of living	mortality was found when	samples in which
events, reading books or	(Konlaan 2000, 31).	1577).	problems, thus enhancing people's reflection on their	conditions, which is an interview survey conducted on	controlled seven control variables for rare	confounders are well
periodicals, and making	To investigate the	Organism responds with	life events in their mind.	a random sample of about	attendance at events and a	controlled and the types of
2 2	possible influence of	changes in the humoral	More importantly, such	8000 people a year. It covers	trend towards influence for	
deferminants for survival.	attendance at cultural events, reading books or	nervous system- for example, verbal expression	activities provide direct vicarious emotional arousal	several components of living conditions such as health,	occasional attendance compared with often	cultural stimulation are well
	_	of traumatic experiences	without damage or side	economic resources, education,	attending events. When	specified should be used to
Swedish interview of living	periodicals, making		<u> </u>			
conditions	music or singing in a	through writing or talking	effects in real life (Bygren	employment and housing. In	income was removed,	try to falsify the hypothesis
conditions.	•	-	_	employment and housing. In the years 1982 – 1983 the interview went into some	income was removed, education did not influence survival, but when	try to falsify the hypothesis before experiments start

Medicine, University of	1996, 1577).	fewer medical visits.	have been used to stimulate	activities. Those interviewed	the influence of income	Johansson 1996, 1580).
Umeå, Sweden and Statistics		(Berry DS, Pennebaker JW	older people (Wickström	were followed up for survival until 31.December 1991.	was still significant. For	
Sweden, Department of		1993, (Bygren, Konlaan, Johansson 1996, 1577).	B-M, Theorell T, Sandström S. 1993).	Risks per person year at each	men having a social network was a slight risk	
Welfare- and Social		( 13 / / ).	Many of the selective	year of follow up were	factor and for women a	
			factors determining	computered.	lack of a social network	
Statistics, Stockholm,			attendance at different kind of events are correlated	Three independent variables were an attendance index, a	was a slight risk factor.	
Sweden.			with survival. Educational level is one such factor. Disease influences the ability to take part in activities and the kinds of activities possible to pursue (Bygren, Konlaan,	reading index and a music-making index. A proportional hazard model was used to estimate relative risks and 95% confidence intervals. (Bygren, Konlaan, Johansson	The interaction was analyzed and found to be of no importance for the coherence of cultural consumption and survival (Bygren, Konlaan, Johansson 1996, 1579).	
			Johansson 1996, 1578).	1996, 1579).		
Paper III	Paper III			_	Paper III	Paper III
Vanlaan D. D. Dyaman I. O.	The sim of the study was	Paper III	Paper III	Paper III	Altogether 5264 man and	Our conclusion is that this is
Konlaan B.B., Bygren L.O.,	The aim of the study was to investigate if	The axis, in interaction	Many theories have been	A cohort of 10,609 individuals	Altogether 5364 men and 5245 women aged 25 – 74	
Johansson S.E.	utilization of <b>specific</b>	with the hippocampal	advanced as to the origins,	aged 25-74 years were	years at the time of	probably a fruitful line of
Visiting the cinema,	cultural offers covaries	region, initiates a vicious	nature, functions, and	interviewed by non-medical	interview in 1982 and 1983	research. The prognostic
concerts, museums or art	with survival. (Konlaan 2000, 31).	circle, leading to depression. The enrichment	aesthetics of the arts. Several have in common	interviewers in 1982 or 1983, as part of the Swedish Annual	were followed up regarding survival until the end of	importance of changes in
exhibitions as determinant of	(Komaan 2000, 51).	is believed to break the	the psychological study of	Survey of Living conditions.	1996. During this period,	cultural stimulation should
survival: a Swedish fourteen-	The aim of this study was	circle by producing enough	the viewer or listener's	Those interviewed were	916 men and 600 women	be investigated and
year cohort follow-up.	to ascertain the possible influence of attending	receptors in the hippocampus for	experience. There is also psychoanalytic theory of	followed with respect to survival until 31 <sup>st</sup> December	died and the total number of person-years at risk was	experiments initiated for
Department of Social	various kinds of cultural	glucocorticoids to match	art, an arousal theory, a	1996.	about 140 000. Among the	verification. (Konlaan,
	events or visiting cultural	the adrenal gland in fight-	communication theory, and	Seven independent variables	control variables, age, sex,	
Medicine, University of	institutions as a	and flight situations	a theory of tension	were attending the cinema, the	protracted disease,	Bygren, Johansson 2000,
Umeå, Sweden and Statistics	determinant of survival.	(Rasmusson S., Olsson T., Henriksson BG, Kelly P.A.	reduction (Spencer M.J. 1997; Konlaan 2000, 174).	theatre, a concert, museum, art exhibition, church service or	smoking, physical exercise, cash buffer, and music	178).
Sweden, Department of		1998).		sports event as a spectator. The	making exerted an	Results indicate that people
Welfare- and Social			According to the psychoanalytic theory,	total number of visits to each of these seven kinds of	influence in the expected directions while College	who attend certain kinds of
Statistics, Stockholm,			different art forms afford	institutions or event were	level education was	cultural events seem to live
Sweden.			vicarious fantasy	divided into two classes: at	evidently superior to both	longer than those who rarely
Sweden.			gratification of unsatisfied	least an occasional visit, vs.	basic and higher education.	·
			wishes in a sublimated,	non-attendance. The	Influence on mortality was	do (Konlaan, Bygren,
			socially acceptable form (Kreitler S and Kreitler H	proportional hazards model was used to estimate rate ratios	found for all kinds of event attendance, after adjusting	Johansson 2000, 176 – 177).

	1993).	(RR) and 95% confidence	for age and sex.
		intervals (CI).	Adjustment for education
	Art influences arousal	(Konlaan, Bygren, Johansson	and protracted disease also
	psycho-physically, e.g. by	2000, 175).	attenuated the effects but
	loudness, the art		they were still significant
	expressions association		(Konlaan, Bygren,
	with survival matters like		Johansson 2000, 176 –
	food, war, sex or death,		177).
	and the contrast with		Visiting museums gave the
	earlier experiences, i.e.		highest protection
	novelty, surprise, complex		according to the point
	pattern or heterogeneity,		estimate with the
	irregularity, and		significant relative risk
	asymmetry of the elements		(RR) being 1.42. This was
	(Winner 1982).		followed by attending
			concerts RR= 1.29, then
	The communication theory		visiting the cinema –
	distinguishes between		RR=1.20 and finally arts
	discursive symbols and		exhibitions RR=1.14
	presentational symbols.		(Konlaan 2000, 50).
	The inner reality is best		Analysis of the data
	described not in words		revealed that attending the
	and/or statistics, but by		cinema, concerts of visits
	representational symbols		to museum and art
	used in the arts. These		exhibitions influences
	symbols are able to reflect		mortality in a positive
	the structure of feeling and		direction (Konlaan,
	enable people to		Bygren, Johansson 2000,
	understand the world of		176 – 177).
	feelings. Tension		
	reduction is suggested to		
	consist in the arousal and		
	relief of tension. Art		
	generates multidimensional		
	tensions, but also absorbs		
	diffuse tensions in the		
	spectator. Specific tensions		
	may be resolved through		
	other aspects of the art		
	input. Such resolution is		
	attended by pleasure		
	(Konlaan, Bygren,		
	Johansson 2000, 174).		

	T	T =	T =	I	T =	I
Paper IV	Paper IV	Paper IV	Paper IV	Paper IV	Paper IV	Paper IV
Johansson Sven Erik, Konlaan Boinkum Benson,	Specific aim of the study was to investigate if <b>change</b> in habits of	Self-reported health status was the main outcome measure. The variables	Cultural experiences and impressions from literature, theatre, film and from	The longitudinal analyses were based on interviews from two occasions 8 years apart with 3,	In all independent variables except region, the correlation between	Participation in the cultural life is a multidimensional
Komaan Bomkum Benson,	utilization of the cultural	used for control purposes	making music can have	793 adults aged 25 – 74 years	changes in self-reported	matter and our measure
Bygren Lars Olov	offers covaries with change in self-reported	were baseline health status according to the survey of	physical, mental and social effects. There are theories	from a simple random sample of the Swedish population	health and changes in attendance at cultural	covers only a part of the
Sustaining Habits Attending	(or perceived) health. (Konlaan 2000, 31).	1982-1983, age (at baseline) type of residence,	in several sciences regarding the possible	collected by Statistics Sweden (Statistics Sweden ,1996).	events were the expected. The poorer education, the	matter. Additionally our
Cultural Events and	The purpose of this study	geographical region of domicile, and	mechanisms of this phenomenon. One focus is	They were interviewed personally in 1982 – 83, and	larger the proportion having poor self-reported	measure of health is relying only on one single question
Maintenance of Health:	was to assess how	socioeconomic status (level	the reduction of tension	re-interviewed using the same	health status and the lower	
A Longitudinal Study.	changes in the habit of attending cultural events	of education). (Johansson, Konlaan, Bygren 2000, 2).	(Spencer, 1997). Works of art produce specific	questionnaire in 1990 – 91, having been tracked with the	frequency of cultural attendance. By and large,	about subjective health.  If attending cultural events
	in the community might	Romann, Bygren 2000, 2).	tensions, which combine	help of the Swedish personal	the prevalence of poor self-	
Statistics Sweden,	predict self-reported health (Johansson,	Perceived health as the outcome variable of	with diffuse residual tensions in the spectator.	identification numbers and the total population register.	reported health status increased with the age of	has a causal effect on health, then it appears to have been
Department of Welfare- and	Konlaan, Bygren 2000,	interest (Konlaan 2001,	These combined tensions	Outcome variable was health	the cohort, from 20% in	
Social Statistics and the	2).	30).	are then resolved through	status. Question: "How would	1982 – 1983 to 29% in	transient. Cultural
Department of Social			some other inductive aspect of the works of art.	you describe your general health?" Is it "good", "poor",	1990-91; a crude increase by 45%. The annual	stimulation is a `perishable
Medicine, University of			According to	or "somewhere between good	increase was 6% and the 8-	commodity` and continued
			communication theory, art	and poor"? Those who	year increase was	frequent replenishment is as
Umeå, Sweden.			objectifies human feelings so that one can understand	answered that their health status was "poor" or	approximately 59%. This can be compared with the	important as recruiting new
			the world of inner life by	"somewhere between good and	correlation with attending	consumers of this
			the presentational symbols used in the arts. These	poor" were reckoned as having poor health status. The	the cultural events seldom, which was of the same	commodity. There could be
			symbols reflect the	baseline health status in 1982 –	order. (Konlaan, Bygren,	some important public
			structure of feeling and help one understand the	1983 described in the same way was used as a confounder.	Johansson 2000, 8).	health repercussions from
			world of feelings, which a	Variables for control were age,		the findings, as the custom
			discursive symbol such as literal language or numbers	housing residence, geographical region, socio-		of attending cultural events
			can not accomplish. Arousal of attention,	economic status and music making index.		is not the same in all social
			alertness or excitement is	Variable of prime interest was		groups. (Konlaan, Bygren,
			another theory regarding	a cultural attendance index,		Johansson 2000, 14).
			the mechanism. One is	constructed from visits to		
			aroused by attributes such	cinema, theatre, concert and		
			as brightness or loudness,	live music performance,		
			by being reminded of survival factors such as	museums and art exhibition to		
			food, sex and death or by	test the hypothesized link. Score on cultural attendance		
			surprise, frustration.	was founded on 5 questions		
			According to	that covered these cultural		

			psychoanalytical theory, art affords vicarious experiences of unsatisfied desires in a socially accepted form. Psychoanalytical theory also explains how the normal symbolizing faculty develops in the interaction between mother and child and how this faculty is essential in caring for ourselves and for enjoying art. (Konlaan, Bygren, Johansson 2000, 3-4).	offers and they were given equal weight in the index. (Konlaan, Bygren, Johansson 2000, 5 – 6).		
Paper V	Paper V  The aim of the study was	Paper V  Main outcome variables of	Paper V Enjoyment of the arts is	Paper V  Twenty one individuals interested in the trial were	Paper V  The results of this study	Paper V Our findings could be interpreted as demonstrating
Konlaan B.B., Björby N.,	to test if experimental stimulation by <i>fine arts</i>	interest were health-related determinants (Konlaan	usually associated with the experience of pleasure and	recruited for the experiment from a simple random sample	showed that the diastolic pressure in 8 out of the 9	the effect of selecting people
	has effects on health	2000, 56).	relaxation. Arts allows the	of 1000 persons aged 16 – 80	individuals who were	enjoying cultural events, or the effect on heir social
Weissglas G, Widmark M.	determinants (Konlaan 2000, 31). The aim of this study was to assess the specific biomedico-	An enriched environment for comatose children or environmental enrichment	imagination to transcend social barriers in thought and promotes positive feelings (Rider MS,	years drawn in 1994 from registered inhabitants of Umeå, a small town in northern Sweden. They had been sent a	culturally stimulated was significantly reduced. There were no marked changes found in those that	network. The results in this study indicate that these forms of
Attendance at cultural events	social effects of	coupled with a behavior	Weldin C 1990, 17)	postal	were not culturally	stimulation might have specific health benefits.
and physical exercise and	participating in cultural events and gentle	program for seriously retarded children is known	The deepest concerns of people and the ways that	questionnaire. Including items on patterns on cultural,	stimulated. The culturally stimulated group also	A general improvement in
health: a randomized	physical exercise effects	to be beneficial (Horner	the world is perceived are	personal physical activities and	showed decreases in the	access to cultural participation would
controlled study.	apart from the general effects of participating in group activities	RD 1980).  A comprehensive program	displayed in the arts (Steiner 1984, 26).	the health status of respondents. The response rate was 62%. The 21 participants	ACTH and s-prolactin levels. Also the 8 individuals stimulated with	probably reduce the differences in health status
Department of Social	(Konlaan, Björby,	including cultural		were randomized into four	light physical exercise	between the high and the low users of the supply and
Medicine, University of	Bygren, Weissglas, Karlsson, Widmark 2000,	enrichment has enabled disadvantaged children to		groups in a factorial design as follows: (a) culture group of	showed an increase in their high-density lipoprotein	hence reduce the social
Umeå, Sweden and Statistics	316).	hold their own in		five participants attended one	compared to the eleven	gradient in health and improve the health of the
Sweden, Department of		competition with other children (Greenough WT		cultural event per week; (b) a `physical exercise group` of	individuals who were not stimulated in regard.	general population
Welfare- and Social		1978).		five participants did one form	(Konlaan 2000, 56-57).	(Konlaan, Björby, Bygren, Weissglas, Karlsson,
Statistics, Stockholm,		In education, cultural enrichment reduces		of physical activity per week: (c) a `culture plus physical exercise` group of five	Multiple regression analysis demonstrated a decrease in s-prolactin and	Widmark 2000, 319).

Sweden.		vulnerability to exploitation or manipulation (Winner 1982).  General unspecific effect from group interactions could not be fully separated from a specific health effect of the cultural stimulation.  Konlaan, Björby, Bygren, Weissglas, Karlsson, Widmark 2000, 316).		participants attending two events (one of each kind9 per week and (d) a`non stimulated` group of six participants not involved in any way. A supervisor led each of the first three groups. The experiment lasted two months. Participants underwent a medical examination at the start and two months later. Arterial blood pressure was measured. Blood samples and a 24-h urine sample were provided by each participant before and after the experiment. An Antonovsky questionnaire for `sense of coherence` was completed by each participant before and after the experiment. Three independent variables were assigned to the two kinds of stimulation and an interaction term. The dependent variable was a health-related test. A multiple regression statistical procedure was used in analysis instead of analysis of variance (ANOVA).	in diastolic blood pressure due to cultural stimulation. Antonovsky's theory of 'sense of coherence' (which is a personal factor and should remain relatively stable) proposes that persons with a high degree of 'sense of coherence' also have a high general resistance to disease.  Neither education nor income level seemed to have had any effect on the rates of participation in this sample (Konlaan, Björby, Bygren, Weissglas, Karlsson, Widmark 2000, 318).	
A Study of the Effects of Visual and Performing Arts	Objectives:	The World Health	Concept of the culture is	Measurements and statistical analysis of the results.	Results of the research:	"The findings of research carried through
in Health Care	To produce a quantitative evaluation of the effects of the visual and performing	Organisation defines it as 'a state of complete physical,	not defined in the scientific approach of the research.	"The measurements were carried out in the same part of	The Integration of the Visual and Performing Arts in Healthcare:	Arts in 2003, provide further evidence of
Rosalia Lelchuk Staricoff PhD  Director Research Project,	patients, staff and visitors. The results are published elsewhere (Mikellides B. Colour and Physiological	mental and social well- being and not merely the absence of disease."	Author draws attention to the therapeutic effect of music, which has been	the clinic, at the same time of the week, for the same treatment or medical procedure, with the same	Induces significant differences in clinical outcomes	the crucial importance of integrating the arts into health care, thus enhancing the patient's quality of life, as well as the
Jane P. Duncan BA (Hons)	Arousal. The Journal of	(Staricoff 2003 7)	used in the treatment of	medical team." (Staricoff 2003, 9).	Reduces amount of drug consumption	quality of the service." (Staricoff 2003, 14).
Public Art and Design Research Assistant Melissa Wright MSc	Architectural and Planning 1990; 7:1.	Staricoff brings refers to	cancer patients and widely		3 1 1 1 1	

(This research was instigated and commissioned by Susan Loppert, Director of Chelsea and Westminster Hospital Arts until December 2003.)

The research was carried out at Chelsea and Westminster Hospital from 1999 to 2002

To answer whether the integration of the arts in health care can induce physiological and psychological changes of clinical value.

To find out whether the visual and performing arts can induce changes in physiological responses. To establish staff attitudes towards this particular environment and the potential effect that it could have on job satisfaction, recruitment and retention.

"This research aimed to find out whether the integration of visual arts and live music in the ward environment could have an impact on the consumption of analgesics during the postoperative period and on the length of stay in hospital." (Staricoff 2003, 35).

"To determine whether there is a change in the levels of anxiety and depression of pregnant women attending the antenatal classes of breathing and relaxation using the Alexander Technique."(Staricoff 2003, 50).

"To determine whether the introduction of live music in the waiting area of the high-risk clinic had an effect on the level of blood pressure of pregnant women

article posed a provocative question 'Is it possible to be severely disabled, in pain, close to death, and in some sense "healthy"?' Staricoff writes: "The author argues that it is possible because health comes from adaptation to, and acceptance of, circumstances." (Staricoff 2003, 7; Smith R. Spend (slightly) less on health and more on the arts. BMJ 2002; **325:** 1432-1433).

literature. (Staricoff 2003, 13). "Live music and visual arts

is described in following: "Live music provided a varied programme of light, classical and world music by string quartets, harpists, guitarists and pianists. It was played either inside the treatment room or in its vicinity. 'Visual art' consisted in pictures which were specially selected from 'Paintings in Hospitals" collection, and included landscapes, marine pictures, portraits, figurative and abstract works, and were changed every week." (Staricoff 2003, 13).

evaluated using the Hospital Anxiety and Depression scale Patients were invited to complete this specially designed scale before and after the intervention of visual arts and /or live music. The data was analysed statistically.

Physiological and biological chal The effect of music, measured in the presence or abse visual art and/or live music include: Levels of blood pressure: High-risk Antenatal Clinic and Day Surgery Unit, Foetal Heartbeat/pulse: Antenatal Clinic, Heart rate: Antenatal Clin and Day Surgery Unit.

A thorough review of the literatu including the latest medical find conducted for each area of resear order to establish and rightly into relevant physiological and biological measurements.

Patients were invited to complete this specially designed scale before and after the intervention of visual arts and /or live music. The data was analysed statistically. A thorough review of the literature including the latest medical findings was conducted for each area of research in order to establish and rightly interpret the relevant physiological and biological measurements. To maximise objectivity in each area of research the data was retrieved from the patients notes, after obtaining written consent from both the patient and the hospital's Ethics

- Improves patient management
- Contributes towards increased job satisfaction
- Enhances the quality of service (Staricoff 2003, 5).

breathing and relaxation during antenatal classes supports the hypothesis that live music induces physiological changes which could have clinical significance.

Music is a valuable addition to the list of therapeutic aids allowing pleasant and costeffective treatments. (Staricoff 2003, 18).

"The value of the work of Chelsea and Westminster Hospital Arts was highly appreciated by 88%, and 82% considered that the arts play a very important role in healing." (Staricoff 2003, 19).

The results of this study indicate a reduction of both systolic and diastolic blood pressure in patients waiting for their appointments in the presence of live music

These are outcomes of clinical significance, even though they were not statistically significant due to the size of the sample.

For reasons beyond our control we were unable to gather data from a larger

included clinicians, nursing staff, administrators and managers, indicated that the particular environment of Chelsea and Westminster hospital - architecture, light, colour, visual art and live music greatly influenced their decision to apply for a job in the hospital or remain in their current position .This result is an indication of the possible far-reaching consequences that the integration of the arts into the health care environment might have in the recruitment and retention of the staff." (Staricoff 2003, 5).

Wider social impact of the health policy appears in the following quotation where Staricoff draws attention to the connection between sustainable development, education and health-supportive environment: "It is the role and the responsibility of society to provide the right supportive environment, and is indeed 'in the interests of sustainable development to help ensure the health and well-being of future generations; there are urgent and widespread educational, information sharing and research needs, for which universities, service departments and professional organisations have important roles" (Staricoff, 2003, 7; Philips R. Conceptual Frameworks for Setting Environmental Standards. International Journal of Occupational Medicine and Environmental Health 1996;9: 201-210). It would be very important to encourage

a more extensive research involving

attending."(Staricoff	Committee, aiming to diminish	number of patients in this	a larger number of patients in a
2003, 52).	the incidence of any bias by	area of research.	randomised study.
	either the patient or medical		,
"To determine whether	staff."(Staricoff 2003, 3).		
live music had an effect	(		
on the levels of <i>anxiety</i>	The effect of live music on		
and depression of	pregnant women attending the		
postnatal women."	High-Risk Antenatal Clinic:		
(Staricoff 2003, 53).	The accurate measurements of		
	systolic and diastolic blood		
"To determine whether	pressure were taken by the		
the installation of a	clinician and later retrieved		
specially designed screen	from the notes of the patients.		
in the labour and delivery	The results showed that		
room had an influence on	systolic blood pressure was		
the <i>length of labour</i> and	3.5mmHg lower and diastolic		
the requirement for	blood pressure was 2.3 mmHg		
epidural anaesthesia."	lower in the group of women		
(Staricoff 2003, 55).	20 waiting for their		
	appointments whilst listening		
"To determine whether	to live music, compared to		
the introduction of visual	those patients who waited in		
art and live music into	absence of music. The control		
the clinical environment	group includes 34 patients and		
had an effect on the	54 patients the study group."		
psychological,	(Staricoff 2003, 21).		
physiological, and			
biological measurements			
taken during the			
preoperative preparation			
of patients undergoing			
surgery." (Staricoff 2003,			
56).			
"To determine whether the			
environment - architecture,			
lighting, colour, works of			
art and live performances -			
contribute to staff			
satisfaction and have			
implications for recruitment			
and retention." (Staricoff			
2003, 62).			

Hanna – Liisa Liikanen	The first aim of this study was to find out,	According to Heinz Langer, one of the authors	Richard Shusterman's theory of pragmatist	Ethnography and qualitative methods. Interviews,	Questionnaire was answered by 126 health	Liikanen draws attention to the following
Taide kohta elämän	how Arts in Hospital and	of the idea of "Arts in	aesthetics. Four	observations and diaries	care units. The most	conditions, necessary for further
Arts in Hospital – hanke ja	Health from Culture are implemented into	Hospital": human being has to be understood as	dimensions of the aesthetic experience:	conducted and written in four social and health care units.	cultural activity in those health care units was	development of the healthcare through
kulttuuritoiminta	contemporary health-care	Psychosomatic whole	- evaluative		hearing the music and	cultural activity:
itäsuomalaisten	units in Finland (Liikanen 2003, 22).	(Liikanen 2003, 14-15). Langer claimed that	dimension - phenomenological	27 semi-structured interviews, several additional interviews	crafts activity. There were also different activities	1. Arts and culture as important part
hoitoyksiköiden	The second aim is create	design, environment and	dimension	with patients, habitants and	organized as circle of	of the life of every human being.
arjessa ja juhlassa.	overview about publications concerning	arts in the hospital have to be harmonized with the	<ul><li>semantic dimension</li><li>demarcational</li></ul>	personnel of the hospitals 400 photos	memories, dance club and hobby circles. Most of the	2. More equal attitudes and respect
	cultural activities in	process of healthcare and	dimension	400 photos	cultural activities took part	towards profession both artistic
Helsinki 2003	healthcare institutions. Third aim is to	that there shouldn't be controversies between	Pragmatist aesthetic unifies practical and cognitive,	In 1999 the questionnaire was sent into 356 health care units	inside of the health care units. There were still	and healthcare
Suomen Mielenterveysseura.	suppositions and	artistic activity and	somatic and social so that	in Eastern Finland.	organized theatre-visits (in	3. More flexible schedule in hospitals
	requisites to the	healthcare (Liikanen 2003,	they together are	(Liikanen 2003, 72).	17 retirement home and in	4. Appropriate number of animators
	convergence and condensation of the	14).	influencing to aesthetic experience.		16 homes of handicapped people and to theatre (15	in hospitals
	collaboration between arts, social, and	Holistic concept of the human being (Liikanen	(Shusterman 1997b, 6, 12; Liikanen 2003, 29).		retirement homes, 13 homes of handicapped	5. Supply of the cultural activities
	healthcare fields.	2003, 24).	Litkatien 2003, 29).		people and from some	has to be adjusted into healthcare
	(Liikanen 2003, .23).	, ,	Liikanen writes about		home of children during	institutions. Transport-services for
	Study investigates how and by what kind of		culture and applied art .(Liikanen 2003, 24)		the year m 1999. Cinema is in 5 homes of retired	attending to the concert or theatre.
	premises the fields of				people, in 3 psychiatry	6. In order to achieve more equal
	cultural and social		Arts have two functions in		hospital and in 2 units of	
	dimension are meeting and how the sectoral		healthcare environment:		the handicapped people. Art exhibitions and	collaboration between artistis and
	borders are surmounted.		1. art is the specific form		meetings with writers were	healthcare institutions, the current
	Liikanen sees		of the psychotherapy		rarely organized.	funding system should be
	prerequisite that art and culture have to be seen as		2. arts and cultural activity will be adjusted		Arrangement of the cultural activities was	improved. Allowances secure the
	part of everyone's life,		into environment of the		assigned to the personnel	continuation. Artists should be
	needs and rights. In care units this entails		healthcare institution and become part of the		of the healthcare units as their additional tasks. In	paid for their work in healthcare
	additional training for the		process of care.		some bigger unit there was	institutions (Liikanen 2003, 155).
	staff, re-assessment of		(Liikanen 2003, 15).		appointed `responsible on	,
	resources and more		Study investigates the		culture`.	
	flexible organization of work.		extent, forms and significance and		Funding was scanty or missing at all. 60% of units	
	Liikanen sees 3 aims		possibilities of the arts- and		announced the funding	
	continuing in Health		cultural activities as a case.		coming from the resources	

Does singing promote Well-	from Culture aims in following:  1. Aesthetic aims 2. Social aims 3. Better perceived health (Liikanen 2003, 22).  This study explored the beneficial effects of	Continuous ECG was recorded and computerized	On the basis of previous	Eight amateur (2 m, 6 f, age 28 – 53) and eight professional	of the reserved budgetary estimates. 19% announced their cultural budget coming from the other sources. Use of the estimated funding was different and there was any comparative information about that (Liikanen 2003, 72).  Heart rate variability analyses showed	If it can be proved that amateur singing promotes wellbeing, it would of course
	singing on well-being	spectral analysis was	researches singing as a	(4m, 4f, age 26 – 49) singers	significant changes over	have important implications for public
being?	during a singing lesson	performed.	popular cultural activity is	who had been attending	time in the two groups for	1 1
An empirical study of	(Grape, Sandgren, Hansson, Ericson,	Serum concentrations of	expected to have	singing lessons for at least six months were included.	total power, low and high frequency power. Power	health promotion. In the present study,
professional and amateur	Theorell 2003, 65). In	TNF-alpha, prolactin,	implications for public	Continuous ECG was recorded	increased during singing in	the hypothesis tested was that the singing
singers during a singing	the present study, the hypothesis tested was	cortisol and oxytocin were measured before and 30	health promotion. (Grape,	and computerized spectral analysis was performed.	professionals, whereas there were no changes in	lesson might have cardiovascular as well
lesson.	that the singing lesson	min after the lesson.	Sandgren, Hansson,		amateurs. Serum	as endocrinological-biochemical effects
Christina Grape, Maria	might have cardiovascular as well as	Five visual analogue scales	Ericson, Theorell 2003,	Visual analogue scale (VAS, sad-joyful, anxious-calm,	concentration TNF-alpha increased in professionals	on the subjects and be more beneficial for
Sandgren, Lars-Olof	endocrinonlogical-	(VAS) were scored before	66). Professional singing	worried-elated, listless-	after singing lesson,	well-being in amateur than in professional
Hansson, Mats Ericson,	biochemical effects on	and after the lesson.	may not induce state of joy	energetic and tense-relaxed) were scored before and after	whereas the concentration in amateurs decreased.	singers. (Grape, Sandgren, Hansson,
Töres Theorell	the subjects and be more beneficial for well-being	In addition, a semi-	and may not induce	the lesson. (Grape, Sandgren,	Serum concentration of	Ericson, Theorell 2003, 66).
National Institute for Psychosocial Factors and Health, Division for Psychosocial Factors and Health, Department of Public Health Sciences, Karolinska Institutet, Department of Psychology, Stockholm University, Department of Clinical Chemistry, Karolinska Hospital, Department of Industrial Economics, Royal Institute of Technology, Stockholm, Sweden.	beneficial for well-being in amateur than in professional singers (Grape et al., 2003, 66).	In addition, a semi- structured interview was performed (Grape, Sandgren, Hansson, Ericson, Theorell2003, 65)  Serum cortisol is the most frequently studied indicator of arousal. (Grape et al., 2003, 68). Serum cortisol increases in situations that demand energy mobilization. (Frankenhauser and Johansson 1986).  The serum TNF-alpha concentration increases in inflammatory conditions but also during the	and may not induce wellbeing in the same way as amateur singing (Sandgren 2002).	the lesson. (Grape, Sandgren, Hansson, Ericson, Theorell 2003, 65).  Serum concentrations of TNF alpha, prolactin, cortisol and oxytocin were measured before and 30 min after the lesson. (Grape et al, 2003, 65).  The semi structured interview was designed so as to supplement the quantitative data with quotations regarding emotions during the singing lesson, as well as emotions related to singing in general. For variables with normal distributions or close to normal distributions (skewness)	Serum concentration of prolactin and cortisol increased after the lesson in the group of men and vice versa for women. Oxytocin concentration increased significantly in both groups after the singing lesson. (Grape, Sandgren, Hansson, Ericson, Theorell 2003, 65).  Amateurs reported increasing joy and elatedness whereas professionals did not. However both groups felt more energetic and relaxed after the singing lesson.	Effeson, Theorem 2003, 00).

influence of psychological	hatriagn 1.0 and 1.0) two	The interviews showed that
influence of psychological	between – 1.0 and 1.0), two-	
stress (Steptoe et al., 2001).	way analysis of variance was	the professionals were
	used.	clearly achievement-
Oxytocin is a pituitary	(Grape et al., 2003, 68).	oriented, with focus on
hormone with an important		singing technique, vocal
role in child bearing		apparatus and body during
(particularly during		the lesson. The amateurs
delivery), but it is also of		used the singing lessons as
significance both in men		a means of self-
and women to memory and		actualization and self-
attachment (Sawchenko		expression as a way to
1991). It has been shown		release emotional tensions.
that oxytocin increases in		
certain pleasant situations,		Serum oxytocin was the
with or without tactile		only
stimulation (Uvnäs-		endocrinological variable
Moberg et al., 1991).		that showed a significant
Furthermore, it has a role		main effect in the
in the relief of pain and		after/before analysis. The
anxiety (Stock and Uvnäs-		p-value in this analysis was
Moberg, 1988).		0.009.
Serum prolactin increases		The number of significant
in stressful situations		findings clearly exceeds
characterized by		the number that should
powerlessness (Theorell		have arisen out of chance
1992).		alone, and the patterns of
1992).		findings did make psycho
Vigual analogue coale		
Visual analogue scale		physiological sense.
(VAS) were intended to		
reflect emotional states		In summary, the hypothesis
(sad-joyful, anxious-calm,		was partly confirmed.
worried-elated, listless-		(Grape et al., 2003, 72).
energetic and tense-		
relaxed) were scored		The groups did not differ
before and 30 min after the		with regard to heart rate,
lesson.		neither before nor
		during/after the singing
The variables were chosen		lesson. Group differences
in such a way that they		were discovered when
would cover the most		more subtle parameters
important emotional states		relating to sympathetic
possibly related to a		activity, respectively
singing lesson (Grape et		(Grape et al., 2003, 73).
al., 2003, 68).		(Grape et al., 2003, 73).
		Singing during a singing

	lesson seemed to promote more well-being and less arousal for amateurs compared to professional singers, who seemed to experience less well-being and more arousal (Grape et al., 2003, 65).
	ct al., 2003, 03).