Happiness, daily stress and resilience in adolescents

	- 4 *		•	
Λ.	1011	\mathbf{n}	•	•
	rti			•

Happiness, daily stress and resilience in adolescents. A comprehensive overview.

Article II:

Exploring the relationship among happiness, daily stress and resilience in adolescents.

Margaret Ness

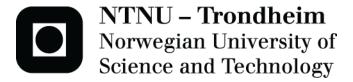
Thesis for the Master's degree in Health Science

Levanger, December 2013

Norwegian University of Science and Technology

Faculty of Social Sciences and Technology Management

Department of Social Work and Health Science



AKNOWLEDGEMENTS

I am very grateful to a number of people who have guided, motivated and encouraged me, both directly and indirectly, during the process of writing this master thesis.

First, I would like to thank my two supervisors, Professor Geir Arild Espnes and Associate Professor Unni Karin Moksnes, for good guidance, advice, constructive criticism and for encouraging me along the way. A special thank you goes to Unni Karin Moksnes for letting me write a master thesis based on data material from her doctoral thesis.

I also would like to thank all employers at NTNU and the Department of Social Work and Health Science for all additional help when I needed advice.

Appreciations also go to my leader and colleagues at Seksjon Psykoser Levanger for their support throughout this process, and for their help with regards to organizing a flexible schedule while finishing this thesis. I also would like to thank Arne Okkenhaug and Dina von Heimburg for an inspirational talk and information about different projects and possible themes, which resulted in inspiration and ideas.

Finally, I wish to express a special gratitude to my fellow students, my good friends and my beloved family for supporting me and backing me up, and I especially express my appreciation to my loving and patient boyfriend for motivation and for believing in me during this demanding, stressful, time-consuming and informative process of writing this master thesis.

Thank you all for personal support and believing in me. It would not have been possible without all of yours support.

Levanger, October 2013 Margaret Ness

CONTENTS

AKNOWLEDGEMENTS	i
MAIN INTRODUCTION	1
NORSK SAMMENDRAG	2
Article I: Happiness, daily stress and resilience in adolescents A comprehensive ov	erview 3
1. INTRODUCTION	5
1.1. General background	5
1.2 Aim and research question:	7
1.3 Literature search	7
2. THEORETHICAL AND EMPIRICAL BACKGROUND	9
2.1. The adolescent period	9
2.2. Happiness	10
2.3. Stress	13
2.4. Resilience	15
3. DISCUSSION	17
3.1. Daily stress as a potential risk factor for mental health and happiness in adol	escents . 17
3.2. The role of resilience in relation to daily stress and happiness	20
3.2.1. Resilience as a direct or indirect influence on well-being	22
4. CONCLUSION AND FUTURE RESEARCH	25
REFERENCES	27
Article II: Exploring the relationships among happiness, daily stress, and resilience	in
adolescents	43
1. INTRODUCTION	45
2. METHODS	51
2.1. Participants	51
2.2. Procedure	51
2.3. Measurements	51

2.4. Statistical analysis53				
3. RESULTS				
3.1. Descriptive results				
3.2. Pearson's r correlation analysis				
3.3. Multiple regression analysis				
4. DISCUSSION61				
4.1. Strengths and limitations				
5. CONCLUSION AND RECOMMENDATIONS				
REFERENCES 67				
MAIN CONCLUSION				
APPENDIX A: The questionnaire				
APPENDIX B: Approval by the Regional Committees for Medical Research Ethics (REK)				

APPENDIX C: Invitation

MAIN INTRODUCTION

This thesis investigates adolescents and their happiness, as well as their experience of daily stress and resilience, and discusses how these constructs relate to each other. It describes definitions and concepts of happiness, stress, and resilience, as well as characteristics of the adolescent period. Results showed that a greater amount of daily stressors was negatively associated with adolescents' degree of happiness. Resilience was positively associated with their levels of happiness and negatively associated with their levels of daily stress. Though resilience was assumed to moderate the relationship between daily stress and happiness, results did not find statistical support for this assumption. Adolescents generally reported relatively high levels of happiness and resilience and moderate levels of stress in their daily lives. Girls and older adolescents experienced higher levels of daily stress, whereas boys and younger adolescents revealed higher levels of resilience. Boys were also generally happier compared to girls.

Structurally, this thesis is divided into two interrelated articles, one of which is theoretical while the other is empirical. Both articles focus on adolescents' health and development, as well as their happiness, stress in their daily lives, and their resilience. Each article is relevant to topics published in the *Journal of Adolescence Health*.

Article I provides an overview of the theoretical and empirical foundation for Article II. The overall aim of Article I was to gain theoretical and empirical knowledge of the constructs of happiness, daily stress, and resilience, as well as the relation among these concepts. The first section of Article I presents a description of the characteristics, changes, and challenges of the adolescent period. It next reviews theoretical concepts, definitions, and empirical work on happiness, stress, and resilience, as well as empirical associations among these constructs. The second section of Article I discusses the relationships among the topics presented, particularly by examining whether stress is a potential risk factor for adolescents' mental health and happiness, and how resilience functions in relation to daily stress and happiness.

Article II consists of an empirical study with a cross-sectional investigation of the associations among happiness, daily stress, and resilience among 1138 adolescents in Mid-Norway. Article II aimed to investigate the levels of happiness, daily stress, and resilience in the study sample, as well as gender and age differences, the statistical associations between these constructs, and resilience as a potential moderator between daily stress and happiness.

Happiness was considered to be the dependent variable, while daily stress and resilience were considered independent variables. Article II first contains a brief review of the content in Article I in addition to the quantitative statistical analyses, and later describes the participants, procedure, measurements, and statistical analyses. Results contain descriptive statistic and correlation analysis, as well as regression analysis in order to investigate resilience as a potential moderator. The discussion contains a consideration of these results, as well as the strengths and limitations of the study.

Above all, this thesis aims to provide new and important knowledge about factors that function in the health and development of adolescents.

NORSK SAMMENDRAG

Denne masteroppgaven undersøker opplevelsen av lykke, daglig stress og resilience blandt ungdommer, og hvordan disse faktorene er relatert til hverandre. Oppgaven består av to tilhørende artikler, en teoretisk og en empirisk. I artikkel I blir opplevelsen av lykke, daglig stress og resilience definert og beskrevet, i tillegg til en gjennomgang av det karakteristiske ved ungdomsperioden. Forholdet mellom lykke, stress i dagliglivet og resilience hos ungdom blir videre diskutert.

Artikkel II er en empirisk artikkel basert på teori og empiri i artikkel I. Resultatene i artikkel II viste at en høyere grad av daglig stress var negativt assosiert med hvor lykkelige ungdommene var. Resilience var positivt assosiert med opplevelsen av lykke, og negativt assosiert med graden av daglig stress. Resilience ble ansett som en potensiell moderator for forholdet mellom daglig stress og resilience, men resultatene i denne oppgaven viste ingen statistiske funn for det. Ungdommene rapporterte generelt relativ høy grad av lykke og resilience, og en moderat level av stress i dagliglivet. Jenter og eldre ungdommer opplevde høyere grad av stress, mens gutter og yngre ungdommer rapporterte høyere grad av resilience. Guttene var også generelt mer lykkelig sammenlignet med jentene.

Article I

Happiness, daily stress and resilience in adolescents A comprehensive overview

Margaret Ness

Department of Social Work and Health Science Norwegian University of Science and Technology

Abstract: The overall aim of this article was to gain knowledge of happiness, daily stress and resilience in adolescents, and investigate how these constructs are related to each other. The first part of the article consists of a theoretical description of the adolescent period. Further on, the theoretical and empirical considerations of happiness, daily stress and resilience, and the relationship between these constructs are emphasized. In the discussion section, the article attempts to explore how the experience of daily stress among adolescents has an influence on their mental health and happiness. Further, the role of resilience in relation to daily stress and happiness is discussed, and the possibility of resilience as a potential moderator between daily stress and happiness.

Key words: Adolescence, happiness, daily stress, resilience, mental health

1. INTRODUCTION

1.1. General background

Representing the period between childhood and adulthood, adolescence consists of the transition from childhood into early adolescence, middle adolescence, and the transition from late adolescence into early adulthood (Byrne, Davenport & Mazanov 2007; Rivara, Park & Irwin 2009; Santrock 2008; Susman & Dorn 2009; Williams, Holmbech & Greenley 2002). Adolescence is often thought to begin around the age of 10 years and end between the ages of 20 and 24 years (Lerner & Steinberg 2009; Ozer & Irwin 2009; Rivara, Park & Irwin 2009; Santrock 2008; Smetana, Campione-Barr & Metzger 2006; Steinberg 2008). The period can generally be divided into early adolescence (from the ages of 10 to 13 years), middle adolescence (from the ages of 14 to 17 years), and late adolescence (from the ages of 18 to 24 years) (Ozer and Irwin 2009; Smetana, Campione-Barr & Metzger 2006). In all cultures adolescence is a time for growing up and preparing for the future and for moving from the immaturity of childhood into the maturity of adulthood (Call et al. 2002; Steinberg 2008).

For all people mental health is an important component of overall health and fundamental to individuals' well-being and optimal function (World Health Organization 2005). The World Health Organization (WHO) has described mental health as a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and can make a contribution to his or her community" (WHO 2005, p.14). Interestingly, far more studies of mental health have focused on aspects of human unhappiness, such as anxiety and depression, while the topics of well-being and positive mental health outcomes have largely been neglected (Cheng & Furnham 2002; Park 2004; Seligman 2008; Seligman & Csikszentmihalyi 2000; Sheldon & Lyubomirsky 2005; Proctor, Linley & Maltby 2010). However, mental health can also refer to positive health and function, of which happiness is a central factor (Fordyce 1988; Park 2004; Seligman 2008; Sheldon & Lyubomirsky 2005).

Happiness is closely related to subjective well-being (Diener 2000; Diener, Oishi & Lucas 2009) and implies that people think and feel that their lives are going well (Lucas & Diener 2009; Veenhoven 2008). For most individuals, being happy is a leading goal in life (Baumeister et al. 2003; Diener 2000; Fordyce 1988; Lucas & Diener 2009; Seligman 2008). Happiness is important because it has been empirically found to lead to positive personal, behavioral, physical, psychological, and social outcomes (Diener & Chan 2011; Lyubomirsky, Diener & King 2005; Veenhoven 2008). Therefore, happiness is not only a

valuable goal in itself but also an important influence upon other important life domains (Diener & Ryan 2009). In light of its consequences, happiness then suggests not only subjective well-being for individuals but also as a societal investment (Diener & Ryan 2009).

Happiness may differ between adolescents and adults (O'Higgins, Sixsmith & Gabhainn 2010), and it is important to investigate factors that influence adolescent' level of happiness (Chaplin 2009; O'Higgins, Sixsmith & Gabhainn 2010). More knowledge about happiness among adolescents is needed, and it is important to examine happiness in relation to mental health factors so that health promotion can be directed toward positive health and function (Mahon & Yarcheski 2002). In this sense, research on adolescents' happiness may provide important knowledge of youths' perceptions of their lives as a whole, critical information about their development during their lifespans (Moksnes et al. 2013), and a better understanding of happiness for potential health promotion strategies for adolescents (Mahon & Yarcheski 2002).

Although most adolescents report positive levels of happiness (Gilman & Huebner 2003; Hellevik 2008; Piqueras 2011; van de Wetering et al. 2010), many adolescents experience stress while developing during this transitional period (Compas & Reeslund 2009; Suldo, Shaunessy & Hardesty 2008). Experiences of accumulated stress are predictors of psychological problems and distress (Chang & Sanna 2003; Grant et al. 2003 2004) and can threaten adolescents' healthy development and well-being (Compas & Reeslund 2009; Grant et al. 2003).

Closely related to stress is resilience, or the collective mechanisms by which a person copes with and recovers from the negative emotions that often accompany stress (Compas & Reeslund 2009; Lyubomirsky & Porta 2010; Masten 2001). The focus of resilience is upon positive outcomes and successful adaptations (Luthar, Cicchetti & Becker 2000; Hjemdal 2009; Masten 2001; Masten, Herbers & Reed 2009; Rutter 2000), as well as how well people sustain health and psychological well-being during challenging situations posing stress experiences and potential risks of negative outcomes (Zautra, Hall & Murray 2010).

Altogether, individuals' mental health conditions are strongly associated with levels of happiness, stress, and resilience (WHO 2005), which makes these factors important to understanding adolescents' psychological health. Knowledge of stress and resilience in adolescents is also important for understanding their healthy development and well-being (Ahern 2006; Byrne, Davenport & Mazanov 2007; Fergus & Zimmerman 2005). Investigating daily stress, happiness, and resilience, as well as gathering knowledge about the relationship

between these constructs, may therefore extend our understanding of the healthy development and positive function of adolescents.

1.2 Aim and research question:

The overall aim of this article is to gain theoretical and empirical knowledge about happiness, daily stress and resilience in adolescents, and the relationship between these constructs. Based on this aim, three research questions have been designed:

- 1) What characterize the theoretical concepts and of happiness, daily stress and resilience, and how are they empirically related?
- 2) How is the experience of daily stress associated with adolescents' mental health and happiness?
- 3) How is resilience related to the experience of daily stress and happiness, and the relationship between these constructs?

1.3 Literature search

Empirical and theoretical findings in this article are based on literature search. The databases used were mainly Science Direct, PsycINFO and PubMed. Furtheron, the "snowball" method was also used to discover other articles of current interest listed in the relevant articles' reference list. A criterion was that articles should have been published since year 2000, but some articles from the 90's and 80's have been used when it was essential to use them or a better option not was found. The NTNU university library (bibsys) was also used to find relevant literature. The keywords mostly used in the literature search were; "happiness", "well-being", "daily stress", "daily hassles", "mental health", "resilience" and "adolescent".

2. THEORETHICAL AND EMPIRICAL BACKGROUND

2.1. The adolescent period

Adolescence involves multiple rapid changes in almost every aspect of an individual's life (Sales & Irwin 2009). The period incorporates puberty, which involves physical, psychological, and hormonal changes, as well as changes in cognitive and emotional aspects (Byrne, Davenport & Mazanov 2007; Kuhn 2009; Smetana & Villalobos 2009; Steinberg 2008; Susman & Dorn 2009). New experiences and opportunities (Call et al. 2002; Coleman 2011; Kuhn 2009; Park 2004), increased independence from parents (Coleman 2011; Seiffge–Krenke 2006), expanded friendships, and the emergence of romantic relationships characterize the adolescent period (Coleman 2011; Connolly & McIsaac 2011; Seiffge–Krenke 2006; Smetana, Campione-Barr & Metzger 2006). The period is also marked by increased autonomy and identity formation (Call et al. 2002; Sales and Irwin 2009), which may further influence adolescents' choices, values, behaviors, and attitudes (Côté 2009).

Different perspectives on the adolescent developmental period have dominated the studies for several decades (Lerner & Steinberg 2009; Susman & Dorn 2009). These perspectives range from Hall's conceptualization of adolescence as a negative period of "storm and stress" characterized as a turbulent time with multiple conflicts and mood swings (Lerner & Steinberg 2009; Santrock 2008; Susman & Dorn 2009) to a more positively and balanced perspective from which adolescence is seen as a positive developmental period (Catalano et al. 2002; Larson 2000; Lerner et al. 2009). Currently, perspectives focus more on adolescents' strengths and resources, as well as the positive qualities and outcomes they have the capacity to develop (Lerner et al. 2009). Although all adolescents mature psychologically, biologically, and physically, it is important to examine how the influence of these aspects varies individually and leads to different health outcomes in life (Santrock 2008; Steinberg 2008). Since adolescence is a period during which individuals can make enormous positive growth (Call et al. 2002; Sales and Irwin 2009), studies should focus on adolescence as a period during which resources can be developed, not as a life stage of problems that must be managed (Lerner et al. 2009).

Historically, adolescents have not received much attention regarding mental and physical health interventions and outcomes (Ozer & Irwin 2009; Williams, Holmbech & Greenley 2002). This trend is partly due to the idea that most adolescents are healthy according to traditional medical indicators (Ozer & Irwin 2009), as well as to their low morbidity and mortality compared to people in other life periods (Call et al. 2002; Williams,

Holmbech & Greenley 2002). However, the rapid and extensive changes and challenges during the transition from childhood to adulthood can overstrain many adolescents' capacity to cope, which in turn results in negative stress experiences and health problems (Byrne, Davenport & Mazanov 2007). In fact, most mental health problems develop during adolescence, and the number of mental health problems and psychiatric disorders increase significantly during adolescence (Compas & Reeslund 2009; Costello et al. 2003; Grant et al. 2003; Ozer & Irwin 2009; Santrock 2008). These patterns may not only have immediate consequences for adolescents' mental health and well-being, but they may also manifest in several health problems later in life (Call et al. 2002; Grant et al. 2003). In light of the number of changes and challenges adolescents face during this transitional period, it is clear that they represent a potentially vulnerable group exposed to a variety of potential problems and different negative health outcomes (Côté 2009; Kuhn 2009; Lerner & Steinberg 2009; Ozer & Irwin 2009; Rivara, Park & Irwin 2009; Santrock 2008; Suldo, Shaunessy & Hardesty 2008; Susman & Dorn 2009). Adolescence is therefore an important and unique developmental period in regard to research on health and well-being (Call et al. 2002; Compas & Reeslund 2009; Santrock 2008; Williams, Holmbech & Greenley 2002).

2.2. Happiness

During recent decades research has increasingly focused on happiness (Cheng & Furnham 2003; Diener 2006). However, investigations of happiness have focused mostly on adults, and to a lesser extent, the adolescent population (Chaplin 2009; Holder & Coleman 2008; Park 2004; Mahon & Yarcheski 2002).

Happiness can be understood as an outcome of life (Veenhoven 2003) and has a major influence on positive mental health (Fordyce 1988; Park 2004; Seligman 2008; Sheldon & Lyubomirsky 2005). In psychology *happiness* is often used interchangeably with *subjective well-being* (Diener 1984; Diener 2000; Diener & Oishi 2005; Diener, Oishi & Lucas 2009; Veenhoven 2010). In this sense, happiness is the "overall appreciation of one's life as a whole" (Veenhoven 2010, p. 329) and consists of both an affective and a cognitive evaluation of life (Diener 2000; Veenhoven 2010). The affective component determines how well a person typically feels, while the cognitive component implies satisfaction (Veenhoven 2010). The experience of happiness is primarily a subjective phenomenon (Lucas & Diener 2009; Lyubomirsky, Sheldon & Schkade 2005; Veenhoven 2010). It is a conscious state of mind and can therefore be measured by simply asking people how happy they are (Veenhoven

2003; Veenhoven 2008; Veenhoven 2010). An individual's experience of being happy is therefore usually measured by self-report (Baumeister 2003; Sheldon & Lyubomirsky 2005).

Happiness is primarily influenced by three overarching factors: the set-point, circumstances, and intentional activity (Lyubomirsky, Sheldon & Schkade 2005). The set-point is genetically determined (Demir & Weitekamp 2007; Sheldon & Lyubomirsky 2005) and presumed to be relatively fixed, stable over time, and unable to be controlled or influenced (Demir & Weitekamp 2007; Sheldon & Lyubomirsky 2005). By contrast, circumstances refer to the incidental but relatively stable factors within an individual's life, including national, demographic, geographic, and contextual variables, as well as life events (Lyubomirsky, Sheldon & Schkade 2005; Sheldon & Lyubomirsky 2005). Lastly, intentional activity involves the variety of activities people perform in their everyday lives (Lyubomirsky, Sheldon & Schkade 2005; Sheldon & Lyubomirsky 2005).

Although different measurement instruments have been used to measure happiness, most adolescents have reported being happy (Gilman & Huebner 2003; Hellevik 2008; Mahon & Yarcheski 2002; Piqueras 2011; van de Wetering et al. 2010). Of all nations Norway is one of the most highly ranked in terms of the population's happiness and subjective well-being (OECD 2012; Veenhoven 2013), and 86% of the population have reported being satisfied with their lives as a whole (OECD 2012). This is of importance since happy people seem to exhibit better mental health, physical health, and longevity (Diener & Chan 2011; Denier & Seligman 2002; Lyubomirsky, Diener & King 2005; Siahpush, Spittal & Singh 2008; Veenhoven 2008), as well as greater financial success and better coping resources (Lyubomirsky, Diener & King 2005). They also have highly satisfying relationships with friends, romantic partners, and family members (Diener & Seligman 2002; Lyubomirsky, Diener & King 2005), are more flourishing people (Lyubomirsky, Sheldon & Schkade 2005), and can better endure negative emotions (Cohn et al. 2009; Garland et al. 2010; Tugade & Fredrickson 2004). Happiness therefore predicts desirable outcomes in many different life domains (Cohn et al. 2009; Diener & Chan 2011; Suldo & Huebner 2006). Findings have shown that higher levels of happiness among adolescents are associated with higher levels of physical activity (Moljord et al. 2011; Piqueras 2011), higher self-esteem (Baumeister et al. 2003; Cheng & Furnham 2003), more success in social relationships (Diener & Seligman 2002; Proctor, Linley & Maltby 2010), and better academic achievement (Proctor, Linley & Maltby 2010). Higher levels of happiness are also associated with fewer psychological problems (Proctor, Linley & Maltby 2010; Suldo & Huebner 2006) and behavioral problems (Suldo & Huebner 2006).

Overall happiness is not exclusively formed by one specific domain; instead, it purports an overall composition of several domains with various influences (Csikszentmihalyi & Hunter 2003; Lu & Hu 2005; Mahon, Yarcheski & Yarcheski 2005; van de Wetering et al. 2010). Furthermore, different domains are of different importance for each individual, which may change as a result of different life situations, circumstances, and experiences (Diener 2000). Empirical findings have shown that adolescents' perceptions of happiness can change from year to year, from season to season, and from day to day (Csikszentmihalyi & Hunter 2003), as well as that sources of happiness are found to change as adolescents progress through adolescent development (Chaplin 2009). Though what makes adolescents happy varies according to the individual, empirical findings have shown that friendships play essential roles in adolescents' happiness (Chaplin 2009; Cheng & Furnham 2002; Csikszentmihalyi & Hunter 2003; Demir et al. 2007; Demir & Weitekamp 2007; Diener & Seligman 2002; O'Higgins, Sixsmith, & Gabhainn 2010), as well as family factors (Chaplin 2009; van de Wetering et al. 2010), romantic relationships (Demir 2008; Diener & Seligman 2002), and leisure-time factors (Chaplin 2009; Csikszentmihalyi & Hunter 2003; van de Wetering et al. 2010).

Adolescents' happiness also seems to decrease during adolescence (Csikszentmihalyi & Hunter 2003; Hellevik 2008), and empirical findings have shown higher levels of happiness among younger adolescents than among older ones (Moljord et al. 2011; Natvig, Albrektsen & Qvarnstrøm 2003; Piqueras 2011). Contradictory results have been reported with regard to the association of gender and adolescents' level of happiness. A number of studies have revealed significant differences in happiness scores between boys and girls. Empirical findings have shown that girls often report being unhappier compared to boys (Levin, Currie & Muldoon 2009; Moljord et al. 2011), while other findings suggest that girls report being happier (Crossley & Langdridge 2005; Piqueras 2011). At the same time, studies have also found no gender differences in adolescents' level of happiness (Csikszentmihalyi & Hunter 2003; Mahon, Yarcheski & Yarcheski 2005; Natvig, Albrektsen & Qvarnstrøm 2003; van de Wetering et al. 2010).

Altogether, happiness remains an important area for research and health promotion strategies among adolescents (Mahon & Yarcheski 2002; Seligman & Csikszentmihalyi 2000) for several reasons. First, happiness is something that all individuals desire in its own right (Seligman 2008). Second, happiness has a direct value for adolescents' health, as well as it can have several positive benefits later in life (Diener 2006; Diener & Chan 2011; Lyubomirsky, Diener & King 2005; Seligman 2008). Third, happiness may also protect

against negative mental health (Park 2004; Seligman 2008). Therefore, happiness is worth promoting, not only because of its value to an adolescent's life as a whole, but also because an individual's subjective well-being can have positive benefits both later in his or her life and for society as a whole (Diener 2006; Lyubomirsky, Diener & King 2005).

2.3. Stress

Historically, the concept of stress has received various definitions in research (Aldwin 2007; Grant et al. 2003; Lazarus & Folkman 1984). Most definitions of *stress* have focused mainly on circumstances and/or situations that threaten, challenge, or overtax an individual's psychological and/or biological capabilities (Grant et al. 2003). One widely accepted definition of *stress* (Grant et al. 2003) comes from Lazarus and Folkman (1984, p. 19) who have defined it as "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being." Stress is thus a broad term, which not only refers to environmental factors but also to an individual's subjective experience and the range of processes caused by stressors (Grant et al. 2003; Lazarus & Folkman 1984). Stressors are the circumstances and situations' that cause stress, and are defined as: "environmental events or chronic conditions that objectively threaten the physical and/or psychological health or well-being of individuals of a particular age in a particular society," (Grant et al. 2003, p. 449).

Sources of external stressors experienced in adolescence can be categorized as non-normative stressful life events, daily hassles, and normative stressors (Suldo, Shaunessy & Hardesty 2008). Non-normative stressors are often stressful major life events (Stawski et al. 2008) and can include parental divorce, the death of a family member or close friend, illness in the family, or natural disasters (Compas & Reeslund 2009; Stefanek et al. 2012; Suldo, Shaunessy & Hardesty 2008). They are more unpredictable and unusual compared to other stressors (Stawski et al. 2008) and affect only a small portion of adolescents (Seiffge–Krenke 2009). By contrast, daily hassles are minor stressors occurring with greater frequency (Lazarus & Folkman 1984; Stawski et al. 2008). Daily hassles are often irritating and frustrating events that can distress the individual (Lazarus & Folkman 1984; Stawski et al. 2008) and arise within different domains, including academic problems, concerns about the individual's self and future, as well as conflicts with parents, peers, and romantic partners (Pinquart et al. 2009; Stefanek et al. 2012; Suldo, Shaunessy & Hardesty 2008). Lastly, normative stressors are the developmental challenges that most adolescents confront, such as

pubertal development, school transitions, psychosocial changes related to family and peers, and increased academic demands (Coleman 2011; Coleman & Hagell 2007; Stefanek et al. 2012; Suldo, Shaunessy & Hardesty 2008). The focus in this thesis is primarily on normative stressors and daily hassles, which together will be referred to as 'daily stress.'

Research on adolescent stress has shifted the focus from traumatic life events to the stress and challenges adolescents face in their everyday lives (Byrne, Davenport & Mazanov 2007; Moljord et al. 2010; Seiffge–Krenke 2009; Seiffge–Krenke, Aunola & Nurmi 2009). The overall numbers of daily stressors experienced by adolescents are found to increase from preadolescence to adolescence (Rudolph 2002) and further increase into adolescence (Jose & Ratcliffe 2004; Seiffge–Krenke 2000). Research has revealed that the vast majority of daily stressors experienced by adolescents pertains to conflicts with parents, peers, romantic partners, leisure time, the self, academic pressure, and the future (Seiffge–Krenke, Aunola & Nurmi 2009; Seiffge–Krenke et al. 2010; Stefanek et al. 2012). Girls tend to experience higher levels of daily stress compared to boys (Byrne, Davenport & Mazanov 2007; Jose & Ratcliffe 2004; Moljord et al. 2011; Pinquart 2009; Stefanek et al. 2012), particularly in relation to interpersonal stressors (Charbonneau, Mezulis & Hyde 2009; Hampel & Petermann 2006; Seiffge–Krenke 2011). However, the circumstances and situations that cause stress may change during an adolescent's development (Grant et al. 2003; Seiffge–Krenke, Aunola & Nurmi 2009).

Minor and frequent stress, such as daily hassles and normative stressors, may negatively impact an adolescent's well-being (Almeida 2005; Lazarus & Folkman 1984; Zautra 2003), and empirical findings have shown a strong negative correlation between daily stress and happiness (Moljord et al. 2011; Piqueras et al. 2011; Schiffrin & Nelson 2010). Adolescents experiencing higher levels of daily stress have reported being less happy than adolescents experiencing lower levels of stress, while higher scores for happiness are more common among adolescents who report feeling less stressed or not stressed at all (Moljord et al. 2011; Natvig, Albrektsen & Qvarnstrøm 2003; Piqueras et al. 2011).

2.4. Resilience

Resilience is an important factor for positive mental health (Davydov et al. 2010; WHO 2005), and focuses on positive outcomes despite having experienced situations and adversity shown to carry significant risks for developing psychopathology (Blum & Blum 2009; Luthar, Cicchetti & Becker 2000; Masten 2001; Masten, Herbers & Reed 2009; Masten & Obradović 2006; Rutter 2000). Healthy development and strengths are emphasized instead of illness and negative outcomes (Fergus & Zimmerman 2005; Tusaie & Dyer 2004).

The concept of resilience has received a variety of different and inconsistent definitions in previous studies (Ahern 2006). Hjemdal et al. (2006a: 84) have defined resilience as "the protective factors, processes, and mechanisms that, despite experiences with stressors shown to carry significant risk for developing psychopathology, contribute to a good outcome". Protective factors consist of individual and environmental factors (Compas & Reeslund 2009; Tusaie & Dyer 2004) that operate to protect from the negative effects of adverse situations and risks (Tusaie & Dyer 2004). The protective factors connected to resilience can be divided into three overarching categories; the personal characteristics and positive resources of the individual; a family environment marked by stability, support, and coherence; and a social environment external to the family that supports and strengthens an individual's capacity to adapt and cope (Hjemdal 2009; Hjemdal et al. 2007). Though all individuals have the capacity and potential to develop resilience (Master 2001), adolescent's protective factors may change during the different stages of the development, whereas some protective factors may remain stable during the same period (Ahern 2006; Compas & Reeslund 2009). Factors protecting in one situation may therefore not be protective in another situation (Hjemdal 2009). That implies that being considered resilient at one developmental stage during adolescence does not necessarily imply that the same individual will be considered resilient at a later point during development or in life (Fergus & Zimmerman 2005; Hjemdal 2009). Though studies of resilience have seldom focused on gender differences regarding resilience (Friborg et al. 2003), some studies have shown that adolescent boys tend to score higher in resilience compared to girls (Pinquart 2009; Scoloveno 2013; Skrove, Romindstad & Indredavik 2013; Yu et al. 2011).

A key factor in resilience theory and research is the presence of potential risk factors (Fergus & Zimmerman 2005; Hjemdal 2009; Masten 2001). Adolescents must have experienced or been exposed or to some risk factor(s) associated with higher probability for a negative outcome (Compas & Reeslund 2009; Masten 2001; Fergus & Zimmerman 2005). Risk factors are individual or environmental characteristics that increase the probability for a

negative outcome (Coleman & Hagell 2007; Compas & Reeslund 2009) and can range from major stressful life events to daily stressors (Fergus & Zimmerman 2005; Tusaie & Dyer 2004). Risk factors do not necessarily predict a negative outcome with absolute certainty, but rather expose individuals to circumstances and situations associated with a higher likelihood of a negative outcome (Tusaie & Dyer 2004). This implies that stress and resilience are closely connected (Blum & Blum 2009).

Limited attention in resilience research has been given to the stressors and challenges that individuals experience in their everyday lives (Ahern 2006; Ryff & Singer 2003). Previous research has, however, revealed an association between resilience and daily stress experience (Almeida 2005; Diehl & Hay 2010; Montpetit et al. 2010; Ong et al. 2006; Pinquart 2009; Ahern & Norris 2011) and that resilience is negatively correlated with the experience of daily stress in adolescents (Abolghasemi & Varaniyab 2010; Ahern & Norris 2011; Pinquart 2009).

Resilience is also believed to play a role in promoting and enhancing individuals' well-being (Haase 2004; Masten, Best & Garmezy 1999; Scoloveno 2010). To the authors knowledge has the role of resilience related to adolescents' happiness never been investigated in previous studies, though several studies have reported a positive correlation between resilience and well-being (Christopher & Kulig 2000; Masten, Best & Garmezy 1999; Scoloveno 2013; Souri & Hasanirad 2011).

3. DISCUSSION

3.1. Daily stress as a potential risk factor for mental health and happiness in adolescents

According to the accumulated development and changes, as well as the new experiences and challenges, the adolescent period brings with it various amounts of potential stress (Byrne, Davenport & Mazanov 2007; Seiffge–Krenke 2000). Although pubertal challenges, problems, and pressure from friends and romantic partners, conflicts with parents, more adult responsibility, increased academic pressures, greater search for autonomy, and concerns about the future and the self are stressors considered to be a normal part of the adolescent transition period (Byrne, Davenport & Mazanov 2007; Coleman 2011; Coleman & Hagell 2007; Davey, Eaker & Walters 2003; Moksnes et al. 2010; Santrock 2008; Seiffge–Krenke, Aunola & Nurmi 2009), normative stressors and daily hassles may also in sum be a potential threat to adolescent's healthy development and well-being (Byrne, Davenport & Mazanov 2007; Compas & Reeslund 2009; Grant et al. 2003; Seiffge–Krenke, Aunola & Nurmi 2009).

Though most adolescents go successfully through this developmental period without developing significant problems (Compas & Reeslund 2009; Ozer & Irwin 2009), the adolescence marks an increase in the incidence of several mental health problems (Call et al. 2002; Compas & Reeslund 2009; Costello et al. 2003; Santrock 2008; Williams, Holmbech & Greenley 2002). There is convincing evidence that the experience of adolescent stress is consistently related to the occurrence of psychological distress (Grant et al. 2004). Several cross-sectional and longitudinal studies have found that daily stress is associated with psychological symptoms (e.g., anxiety and depression) in adolescents (Chang & Sanna 2003; Grant et al. 2003; Hampel & Petermann 2006; Jose & Ratcliffe 2004; Pinquart 2009; Seiffge–Krenke 2000; Stefanek et al. 2012; Suldo, Shaunessy & Hardesty 2008). Moksnes et al. (2010) have found that increased stress experiences regarding home life, peer pressure, adult responsibility, and school performance were significantly associated with higher levels of anxiety and depression in adolescents. There is thus little doubt that the experiences of daily stress represent significant sources of risk to the positive development of adolescents' health (Compas & Reeslund 2009; Grant et al. 2003).

Although normative stressors and daily hassles represent potential risks, not all adolescents necessarily experience stress as negative (Fergus & Zimmerman 2005). Since stress is a subjective phenomenon, the experience of the same sources and number of stressors

is not necessary associated with psychological upset for all individuals (Steinberg 2008). More specifically, several factors influence the effects of daily stress on adolescents' psychological health and well-being, including timing, duration, intensity, and frequency of stressors, as well as the sum of these factors (Coleman & Hagell 2007; Compas & Reeslund 2009; Jose & Ratcliffe 2004; Lazarus & Folkman 1984). Some adolescents may also experience increased stress when non-normative stressors, such as parental divorce or serious illness in the family, coincide with daily stressors (Coleman & Hagel 2007; Compas & Reeslund 2009). As a result, daily stressors may then be a potential mediator between major life events and psychological distress (Johnson & Sherman 1997; Stefanek et al. 2012). Another factor that influences the effects of daily stress on adolescent psychology and well-being are the variations in the effects of stress as they relate to individual and environmental vulnerabilities (Almeida 2005; Compas & Reeslund 2009; Grant et al. 2003), as well as the individual's ability to cope with stress (Compas & Reeslund 2009; Zimmer–Gembeck & Skinner 2008).

In a supportive environment moderate stress may actually be stimulating, offering adolescents the opportunity to build coping resources (Blum & Blum 2009; Seery 2011; Zimmer–Gembeck & Skinner 2008). In some circumstances individuals may learn and gain resilience from coping with daily stressors (Diehl, Hay & Chui 2012), thus experiencing some daily stress can result in greater resilience related to future stress experiences (Aldwin 2007; Seery 2011). Therefore, although we tend to think of stress as having a negative psychological effect on health and happiness, the connection between stress and negative health development is not fixed (Steinberg 2008). It is when stress is appraised as overwhelming and overtaxes the individual's resources and coping abilities (Lazarus & Folkman 1984) that daily stress becomes a health risk that can lead to negative responses and have a potential negative effect on well-being (Blum & Blum 2009; Schiffrin & Nelson 2008).

Studies have found that higher levels of daily stress in the everyday lives of adolescents related to school, relationships with peers and parents, and romantic relationships are associated with lower levels of happiness (Moljord et al. 2011; Natvig, Albrektsen & Qvarnstrøm 2003; Piqueras et al. 2011; Schiffrin & Nelson 2010). The experience of stressors may affect adolescents' well-being directly by having separate, immediate, and direct effects on emotional functioning (Almeida 2005; Zautra 2003), but also indirectly by increasing in intensity and thus create long-lasting irritations, frustrations, and overloads that may result in more serious stress reactions, such as anxiety and depression (Zautra 2003). Daily and uncontrollable stressors that persist over long periods can result in chronic stress, whose

negative psychological effects pose more continuous negative effects on adolescent's life as a whole (Diehl, Hay & Chui 2012; Zautra 2003). Daily stress may be experienced as fundamental flaws in an individual's life (Zautra 2003), and may bring along sleeping problems, feelings of hopelessness, dissatisfaction, as well as loss of control, meaninglessness, and other negative emotions such as nervousness and sadness (Aldwin 2007; Cheng & Furnham 2002; Coyle & Vera 2013; Diehl & Hay 2010; Ahern & Norris 2011; Landis et al. 2007; Newcomb & Harlow 1986; Schraml et al. 2011).

By contrast, close social relationships with friends, romantic partners, and family members are important domains related to happiness (Demir 2008; Diener & Oishi 2005), and several previous studies have found that interpersonal relationships are significant correlates to and predictors of adolescents' happiness (Cheng & Furnham 2002; Cheng & Furnham 2003; Demir & Weitekamp 2007; Diener & Seligman 2002; Holder & Coleman 2009). However, interpersonal relationships can also be a source to stress (Rudolph 2002; Seiffge–Krenke, Aunola & Nurmi 2009), and most stressful everyday events named by adolescents pertain to conflicts with friends, romantic partners, and parents (Seiffge–Krenke 2006; Seiffge–Krenke et al. 2010; Stefanek et al. 2012; Zimmer–Gembeck & Skinner 2008). Many adolescents begin to expand their social networks to include friends and romantic partners during adolescence, as well as try to make their relationships with their parents more egalitarian. Such significant changes and challenges in close relationships may thus often be accompanied by stress (Seiffge–Krenke 2006; Seiffge–Krenke, Aunola & Nurmi 2009; Seiffge–Krenke et al. 2010).

Friendship is associated with increased happiness (Diener & Seligman 2002; Cheng & Furnham 2002; Demir & Weitekamp 2007; Holder & Coleman 2009) and having conflicts within friendships is found to be associated with decreased happiness (Demir & Weitekamp 2007). Negative experiences with peers, such as a lack of popularity and social rejection, can impair the development of friendships, which can in turn lead to loneliness and depression, in addition to decreased happiness (Nangle et al. 2003; Holder & Coleman 2008). Empirical findings have found that less popular adolescents were less happy (Holder & Coleman 2008) and that adolescents experienced the highest levels of happiness when they were with friends and the lowest levels of happiness when they were alone (Csikszentmihalyi & Hunter 2003; Diener & Seligman 2002).

Romantic relationships have also been shown to be associated with happiness in adolescence (Demir 2008; Diener & Seligman 2002), though they can also have a significant negative impact on mental health and have even been linked to depression in adolescents

(Connolly & McIsaac 2011; Davila et al. 2004; Joyner & Udry 2000; Zimmer–Gembeck & Skinner 2008). Social relationships during adolescence are constantly changing, and most romantic relationships do not last for long during adolescence (Connolly & McIsaac 2011; Seiffge–Krenke 2006). Romantic relationships can be one major source of stress, especially if conflict, insecurity, jealousy, aggression, broken-heartedness, and infidelity occur (Connolly & McIsaac 2011; Gallaty & Zimmer–Gembeck 2008; Joyner & Udry 2000; Seiffge–Krenke 2006). Conflicts in romantic relationships are thus associated with decreased happiness (Demir 2010).

Family is also associated with greater happiness (Diener & Seligman 2002; Holder & Coleman 2009). Cheng and Furnham (2003) have found that good relationships with parents enhance individuals' happiness and that discordant relationships with parents are associated with dissatisfaction and depression. Therefore, although positive social relationships may be important for adolescents' happiness, negative social experiences within social relationships may also be associated with decreased happiness (Holder & Coleman 2009).

3.2. The role of resilience in relation to daily stress and happiness

Most studies focusing on resilience have examined high-risk and traumatized individuals who have experienced major and stressful life events, such as child abuse, natural disasters, war, and/or terrorism (Daud, Klinteberg & Rydelius 2008; Fredrickson et al. 2003; Hjemdal et al. 2007; Luthar, Cicchetti & Becker 2000; Masten & Narayan 2012; Nomura et al. 2006). Fewer studies have investigated the stressors and challenges that adolescents actually face in their daily lives (Ahern 2006; Ahern & Norris 2011; Davey, Eaker & Walters 2003; Ryff & Singer 2003; Suldo, Shaunessy & Hardesty 2008). Nevertheless, recent research has emphasized the importance of studying resilience in relation to daily stress instead of studying it exclusively as it pertains to major stressful life events (Ahern 2006; Ahern & Norris 2011; Almeida 2005; Abolghasemi & Varaniyab 2010; Diehl & Hay 2010; Diehl, Hay & Chui 2012; Montpetit et al. 2010; Ong et al. 2006; Pinquart 2009), and empirical findings have also shown that higher levels of resilience among adolescents were associated with decreased levels of daily stress (Abolghasemi & Varaniyab 2010; Ahern & Norris 2011; Pinquart 2009). Lazarus and Folkman (1984) have proposed that daily stress may be more important for individuals' health and well-being than major life events, and previous research have revealed that daily hassles had a greater impact on psychological symptomatology compared to major life events (Kanner et al. 1981; McIntosh, Gillanders & Rodgers 2010;

Russell & Davey 1993; Seiffge–Krenke 2000; Stefanek et al. 2012). A reason for these findings may be that daily hassles affect a larger proportion of individuals and are more frequent than major life events (Pinquart 2009). Although normative stressors and daily hassles are minor in scale and apparently less dramatic than major life events (Diehl, Hay & Chui 2012), the sum of the duration, frequency, and intensity of these stressors may be as important as the major stressors regarding adolescent mental health (Lazarus & Folkman 1984; Zautra 2003). These empirical findings indicate that the concept of resilience in adolescents has relevance to risks not only related to experiencing major life events and adversity but also associated with the cumulative daily stressors that arise and exist in everyday life.

Resilience does not imply absence from experiencing stress and adversity, but rather the ability to use protective factors to cope more functionally and flexibly when faced with risks (Friborg et al. 2003; Hjemdal et al. 2006a), which may result in being more competent in avoiding or overcoming stress (Baruth & Carroll 2002). These individuals may use personal characteristics or resources, a supportive family environment, and/or external social network to cope better with the stressors they face (Friborg et al. 2003; Hjemdal 2009). Resilient individuals may, for example, be better able to cope with stress due to personal characteristics and resources, such as constitutional robustness, problem-solving skills, intelligence, and sociability, as well as a variety of personal traits such as self-esteem (Hjemdal 2009; Olsson et al. 2003). For many adolescents, the family is of primary support, and parental support and caring, as well as family cohesion, may be important protective factors when coping with stress (Hjemdal 2009; Olsson et al. 2003). Since external social support may include peers, teachers, and coaches (Hjemdal 2009; Olsson et al. 2003), the opportunity to contact a close friend or turning to someone for advice and support in times of adversity and stress may have a buffering effect (Hjemdal 2009). However, many different protective factors have been identified in several studies of resilience with different designs and measurements, thus identifying which protective factors are important under different circumstances is complicated (Hjemdal 2009).

Characteristic for individuals with higher levels of resilience is that they seem to have a broader repertoire of regulation strategies (Hjemdal 2009) and show greater resistance to the negative psychological effects of ongoing stress (Almeida 2005; Bergman et al. 2010), which helps them to recover their typical emotional states after coping with the negative emotions that often accompany stress (Bergman et al. 2010; Lyubomirsky & Porta 2010). Ong et al. (2006) have investigated the roles of resilience and positive emotions in relation to the

experience of daily stress in a series of studies. One finding indicated that individual differences in resilience showed variations in emotional responses to stress. Individuals with higher levels of resilience, for example, showed a weaker association between negative and positive emotions when faced with stress, whereas individuals with low resilience tended to have difficulty regulating negative emotions and thus exhibited heightened reactivity to daily stress (Ong et al. 2006).

3.2.1. Resilience as a direct or indirect influence on well-being.

According to Masten, Best and Garmezy (1990) there is a positive adaptation related to resilience that is connected to states of well-being, thus resilience is closely related to well-being (Masten & Powell 2003; Scoloveno 2013). Positive outcomes typically considered within studies of resilience have included an absence of distress and psychological problems, but more attention should be directed toward adolescents' experience of happiness and well-being as positive outcomes (Luthar, Sawyer & Brown 2006). Successful adaptation and positive outcomes in the face of risks can therefore be reflected in positive mental health and well-being (Compas & Reeslund 2009; Haase 2004; Zautra, Hall & Murray 2010), and previous studies have shown that resilience is positively associated with well-being (Christopher & Kulig 2000; Couto, Koller & Novo 2011; Masten et al. 1999; Scoloveno 2013; Souri & Hasanirad 2011) and that being happy, are found to be more common among highly resilient individuals (Ong et al. 2006).

Resilience may have a directly influence on health outcomes (Aldwin 2007; Fergus & Zimmerman 2005; Pinquart 2009), which suggests that resilience has a direct impact on adolescent well-being and happiness (Fergus & Zimmerman 2005; Masten & Powell 2003; Scoloveno 2013). A possible explanation for this may be that the protective factors of resilience have also been found to be important factors for individual's happiness. For example, family, social, and personal factors have been reported to positively influence happiness (Baumeister et al. 2003; Chaplin 2009; Cheng & Furnham 2002; Csikszentmihalyi & Hunter 2003; Demir, Ozdemir & Weitecamp 2007; Demir & Weitekamp 2007; Diener & Seligman 2002; Holder & Coleman 2008; van de Wetering et al. 2010), as well as act as protective factors that are related to higher levels of resilience (Hjemdal 2009; Hjemdal et al. 2006a; Olsson et al. 2003).

Resilience may also have an indirect influence on adolescents' happiness in the way that the protective factors buffer the effect of stress on the health outcomes (Aldwin 2007; Fergus & Zimmerman 2005; Pinquart 2009). Resilience affects individuals' reactivity to daily

stressors and their ability to cope with the stress they face (Almeida 2005; Friborg et al. 2003; Hjemdal 2009; Seery 2011) and, in turn, their well-being (Almeida 2005; Seery 2011). Considering that daily stress is associated with significant decreases in adolescent's feelings of happiness (Moljord et al. 2011; Natvig, Albrektsen & Ovarnstrøm2003; Schiffrin & Nelson, 2010), resilience has an indirect effect on happiness by its capacity to reduce the negative effects of the stressors (Ahern & Norris 2011; Davydov et al. 2010; Pinquart 2009). The protective factors of resilience may also have an indirect effect by moderating the negative effects of risk on mental health outcomes (Fergus & Zimmerman 2005; Hjemdal 2006b). Results from studies of resilience have indicated that resilience may moderate the negative effects of stressors and actually contribute to promoting mental health and prevent the development of psychopathology, despite the individual's exposure to significant risks (Luthar, Cicchetti, & Becker 2000; Masten, Herbers & Reed 2009; Rutter 2000). A moderator refers to "a variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable" (Baron & Kenny 1986, p. 1174). In relation to resilience, moderating effects occur when the relation between the risk factor to the outcome depends on a moderator, and the effects of the risk factor vary according to different levels of the moderating variable (Masten, Herbers & Reed 2009). Studies have identified resilience as a moderator of pain and stress (Friborg et al. 2006), as well as a moderator of the relationship between stress and psychological symptoms (Pinquart 2009) and between maltreatment and psychological symptoms (Campbell–Skills, Cohana, & Stein 2006). However, no research has yet investigated whether resilience moderates the relationship between daily stress and happiness in adolescents. One study has, however, investigated resilience as a moderator of the relationship between stressful life events and well-being in adults. In that study, higher levels of stress were associated with lower levels of well-being, while higher levels of resilience were associated with higher levels of well-being, though the study did not identify a moderating effect of resilience (Couto, Koller & Novo2011). Accordingly, since daily stress has been shown to have a negative effect on wellbeing and happiness (Almeida 2005; Grant et al. 2003; Moljord et al. 2011; Piqueras et al. 2011; Schiffrin & Nelson 2010), resilience may possibly reduce this negative effect by buffering the negative effect of stressors (Ahern & Norris 2011; Almeida 2005; Davydov et al. 2010).

Although resilience is associated with protective factors that decrease the probability for psychopathology in the face of risk, resilience plays a role in health promotion by enhancing individuals' well-being (Davydov et al. 2010). Thus, resilience may be a protective

mechanism, as well as a promotional mechanism, in relation to mental health (Davydov et al. 2010). Knowledge of resilience provides important information about how adolescents achieve and maintain good mental health and well-being in the face stress and adversity (Zautra, Hall & Murray 2010). Resilience may help individuals to cope with stress, as well as enhance their well-being by reducing the negative effects of stress (Davydov et al. 2010). Resilient adolescents will be able to deal more effectively with daily stress and everyday challenges (Goldstein & Brooks 2013). Their ability to cope with daily stressors may have positive effects on their mental health and well-being, as well as further affect their vulnerability toward developing long-term psychological problems (Zautra 2003).

4. CONCLUSION AND FUTURE RESEARCH

Altogether, this article aimed to gain knowledge of the theoretical constructs of happiness, daily stress, and resilience in adolescents, as well as further investigate the relationships among them. The first research question focused on the characteristics of the theoretical concepts of happiness, daily stress, and resilience, and how are they empirically related. Happiness is an outcome of life, and is a cognitive and affective evaluation of life as a whole. For many people being happy is one of the most important aims in life. Happiness is mainly influenced by individuals' set-point, circumstances, and different activities, for which relationships with friends, family members, and romantic partners are important sources of happiness. Though most adolescents report being happy, the level of happiness seems to decrease during the developmental period. Considering the value of happiness in relation to adolescents' mental health, as well its connection to numerous benefits related to other outcomes in life, happiness should be a major priority within research on adolescents' healthy development.

Meanwhile, stress is the interaction between the individual and the environment that is experienced as overtaxing and challenging and may threaten the health or well-being of adolescents. Adolescence involves a significant increase in developmental changes and challenges related to school, friends, family, the future, and changes in responsibilities, all of which can lead to various amounts of stress. During adolescence, stress levels seem to increase, and adolescents tend to especially experience stress related to interpersonal relationships. Resilience refers to positive outcomes from experiencing situations that have been shown to pose significant risks for developing psychopathology. In this sense, resilience is the sum of processes and mechanisms by which individuals use protective factors to cope with stress.

The second research question focused on how the experience of daily stress is associated with adolescents' mental health and happiness. The empirical and theoretical considerations have shown that the various stress domains during adolescence may together represent a potential risk to the positive development of adolescents' health, as well as have a negative impact on adolescents' happiness and, in turn, their lives as whole. The outcomes after experiencing stress vary according to an adolescent's vulnerabilities, ability to cope with stressors, and the sum of the intensity, frequency, duration, and timing of the different stressors faced.

The last research question focused on how resilience is related to the experience of daily stress and happiness and the relationships between these constructs.

Higher levels of resilience may reduce the stress experienced in the face of daily stressors and prevent the development of psychopathology, as well as may have a positive effect on adolescents' happiness. Furthermore, resilience may have a buffering effect of stressors on psychological health by moderating the relation between stress and happiness.

Despite increased interest in happiness, resilience, and daily stress in adolescents, relatively few studies have investigated the relationship among these constructs. The majority of studies of adolescent mental health have focused on the relationship between stress and psychopathology (Grant et al. 2004). However, mental health also refers to positive functioning and happiness (Natvig, Albrektsen & Qvarnstrøm 2003).

Future research should thus not only identify reasons for why negative health outcomes occur but should also direct focus toward examining why some adolescents do well from a health perspective, despite the risk factors present (Williams, Holmbech & Greenley 2002). In doing so future research should also examine correlates of happiness and variables that affect the relationship between perceived stress in daily life and happiness, and will be important for clarifying and understanding how adolescents' levels of happiness can be enhanced (Schiffrin & Nelson 2010). Above all, research on adolescents' health is important to improving the health and well-being of adolescents as they mature from childhood into adulthood (Williams, Holmbech & Greenley 2002).

REFERENCES

- Abolghasemi, A. & Varaniyab, S.T. (2010). Resilience and perceived stress: predictors of life satisfaction in the students of success and failure. *Procedia Social and Behavioral Sciences*, 5: 748-752
- Ahern, N.R. (2006). Adolescent resilience: An evolutionary concept analysis. *Journal of Pediatric Nursing*, 21(3); 175-185
- Ahern, N. R. & Norris, A. E. (2011). Examining factors that increase and decrease stress in adolescent community college students. *Journal of Pediatric Nursing*, 26 (6), 530–540
- Almeida, D. M. (2005). Resilience and vulnerability to daily stressors assessed via diary methods. *Current Directions in Psychological Science*, 14(2): 64-68
- Aldwin, C. (2007). Stress, coping and development: An integrative perspective. 2nd ed. New York: Guilford
- Baron, R. M. & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182
- Baruth, K. E., & Carroll, J. J. (2002). A formal assessment of resilience: The Baruth Protective Factors Inventory. *Journal of Individual Psychology*, 58, 235–244.
- Baumeister, R.F., Campbell, J.D., Krueger, J.I., & Vohs, K.E. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles?

 *Psychological Science in the Public Interest, 4(1), 1-44
- Blum, L.M. & Blum, R.WM. (2009). Resilience in adolescence, In DiClemente, R.J., Santelli,J.S. & Crosby, R.A. (eds.). Adolescent health. Understanding and preventing riskbehaviors. San Francisco: John Wiley & Sons, p 51-76
- Byrne, D. G., Davenport, S. C. & Mazanov, J. (2007). Profiles of adolescent stress: The development of the adolescent stress questionnaire (ASQ). *Journal of Adolescence*, 30 (3), 393-416.

- Call, K.T., Riedel, A.A., Hein, K., McLoyd, V., Petersen, A. & Kipke, M. (2002). Adolescent health and well-being in the twenty-first century: A global perspective. *Journal of Research on Adolescence*, 12(1), 69-98.
- Campbell-Skills, L., Cohana, S. L. & Stein, M. B. (2006). Relationship of resilience to personality, coping, and psychiatric symptoms in young adults. *Behaviour Research and Therapy*, 44, (4), 585–599.
- Chang, E. C. & Sanna, L. J. (2003). Experience of life hassles and psychological adjustment among adolescent: Does it make a difference if one is optimistic or pessimistic?

 Personality and Individual Differences, 34 (5); 867-879
- Chaplin, L.N. (2009). Please may I have a bike? Better yet, may I have a hug? An examination of children's and adolescents' happiness. *Journal of Happiness Studies*, 10 (5); 541-562
- Charbonneau, A. M., Mezulis, A. H. & Hyde, J.S. (2009). Stress and emotional reactivity as explanations for gender differences in adolescents' depressive symptoms. *Journal of Youth Adolescence*, 38(8); 1050-1058.
- Cheng, H., & Furnham, A. (2002). Personality, peer relations, and self-confidence as predictors of happiness and loneliness. *Journal of Adolescence*, 25(3), 327–339.
- Cheng, H., & Furnham, A. (2003). Personality, self-esteem, and demographic predictions of happiness and depression. *Personality and Individual Differences*, 34 (6), 921–942.
- Christopher, K., & Kulig, J. (2000). Determinants of psychological well-being in Irish immigrants. *Western Journal of Nursing Research*, 22 (2), 123-143.
- Cohn M.A., Fredrickson, B.L., Brown, S. L., Mikels, J. A., & Conway A.M (2009). Happiness unpacked: Positive emotions increase life satisfaction by building r esilience. *Emotion*. 9(3), 361–368.
- Coleman, J. & Hagell, A. (2007). The nature of risk and resilience in adolescence. In Cileman, J. & Hagell, A. (eds.). Adolescence, risk and resilience. Against the odds. Chichester: John Wiley & Sons Ltd, p. 1-16.
- Coleman, J. (2011). The nature of adolescence. 4th ed. New York: Psychology press

- Compas, B.E., & Reeslund, K.L. (2009). Processes of risk and resilience during adolescence. In: R.M. Lerner & L. Steinberg (eds.) *Handbook of adolescent psychology. Vol. 1. Individual bases of adolescent development* 3rd ed. New Jersey: John Wiley and Sons, Inc, p. 561-588
- Connolly, J. & McIsaac, M. (2011). Romantic relationships in adolescence, In Underwood, M. K. & Rosen, L. H. (eds.) *Social development. Relationships in infancy, childhood & adolescence* New York: The Guildford Press, p. 180-206
- Costello E. J., Mustillo S., Erkanli A., Keeler G., & Angold A.(2003). Prevalence and development of psychiatric disorders in childhood and adolescence. *Archives of Generally Psychiatry*, 60 (8), 837–44.
- Côté, J. E. (2009). Identity Formation and Self-Development in Adolescence. In: Lerner, R. M. & Steinberg, L. (eds.) *Handbook of Adolescent Psychology. Vol. 1. Individual bases of adolescent development*. 3rd ed. New Jersey: John Wiley & Sons, Inc, 266-304.
- Couto, M.C. P., Koller, S.H. & Novo, R. (2011). Stressful life events and psychological well-being in a Brazilian sample of older persons: the role of resilience. *Ageing International*, 36 (4), 492-505
- Crossley, A., & Langdridge, D. (2005). Perceived sources of happiness: A network analysis. *Journal of Happiness Studies*, 6(2), 107–135.
- Csikszentmihayi, M. & Hunter, J. (2003). Happiness in everyday life: The uses of experience sampling. *Journal of Happiness studies*, 4(2), 185-199.
- Daud, A., Klinteberg, B. & Rydelius, P-A. (2008). Resilience and vulnerability among refugee children of traumatized and non-traumatized parents. *Child and Adolescent Psychiatry and Mental Health*, 2(7), 1-11
- Davey, M., Eaker, D.G. & Walters, L.H. (2003). Resilience processes in adolescents: personality profiles, self-worth, and coping. *Journal of Adolescent Research*. 18 (4), 347-362
- Davila, J., Steinberg, S. J., Kachadourian, L., Cobb, R., & Fincham, F. (2004). Romantic involvement and depressive symptoms in early and late adolescence: The role of preoccupied relational style. *Personal Relationships*, 11 (2), 161–178.

- Davydov, D.M., Stewart, R., Ritchie, K. & Chaudieu, I. (2010). Resilience and mental health. Clinical Psychology Review, 30 (5); 479–495
- Demir, M. (2008). Sweetheart, you really make me happy: Romantic relationship quality and personality as predictors of happiness among emerging adults. *Journal of Happiness Studies*, 9(2), 257–277.
- Demir, M., Ozdemir, M., & Weitekamp, L. A. (2007). Looking to happy tomorrows with friends: Best and close friendships as they predict happiness. *Journal of Happiness Studies*, 8(2), 243–271.
- Demir, M. & Weitekamp L. A. (2007). I am so happy cause today I found my friend: Friendship and personality as predictors of happiness. *Journal of Happiness Studies*. 8(2), 181–211
- Demir, M. (2010). Close relationships and happiness among emerging adults. *Journal of Happiness Studies*, 11(3), 293–313.
- Diehl, M. & Hay, E. L. (2010). Risk and resilience factors in coping with daily stress in adulthood: the role of age, self-concept incoherence, and personal control.

 *Developmental Psychology, 46(5), 1132-1146
- Diehl, M., Hay, E. L. & Chui, H. (2012). Personal risk and resilience factors in the context of daily stress. *Annual Review of Gerontology and Geriatrics*, 32, (1), 251-274
- Diener, E. (2006). Guidelines for National Indicators of Subjective Well-Being and Ill-Being. Applied Research in Quality of Life, 1(2), 151–157
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95(3), 542–575.
- Diener, E. (2000). Subjective Well-Being The Science of Happiness and a Proposal for a National Index. *American Psychologist*, 55(1), 34-43.
- Diener, E. & M.E.P. Seligman (2002). Very happy people, *Psychological Science*, 13(1), 81–84.
- Diener, E. & Chan, M. Y. (2011). Happy People Live Longer: Subjective Well-Being Contributes to Health and Longevity. *Applied Psychology: Health and Well-Being*. 3(1),1-43.

- Diener, E., & Oishi, S. (2005). The nonobvious social psychology of happiness. *Psychological Inquiry*, 16(4), 162–167.
- Diener, E. Oishi, S. & Lucas, R. E. (2009). Subjective well-being: The science of happiness and life satisfaction, in Lopez, S. J. Snyder, C.R. (eds.), *Oxford handbook of positive psychology*. 2nd ed. New York: Oxford university press, p. 187-194.
- Diener, E. & Ryan, K. (2009). Subjective well-being: a general overview. *South African Journal of Psychology*, 39(4), 391-406
- Fergus, S. & Zimmerman, M.A. (2005). Adolescent resilience: A framework for understanding healthy development in the face of risk. *Annual Review of Public Health*, 26, 399-419
- Fordyce, M. (1988). A review of research on the happiness measure: a sixty second index of happiness and mental health. *Social Indicators Research*, 20 (4), 355-381
- Fredrickson, B. L., Tugade, M. M., Waugh, C. E., & Larkin, G. R. (2003). What good are positive emotions in crises? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. *Journal of Personality and Social Psychology*, 84 (2), 365–376.
- Friborg, O. Hjemdal, O. Rosenvinge, J. H., Martinussen, M. (2003). A new rating scale for adult resilience: what are the central protective resources behind healthy adjustment? *International Journal of Methods in Psychiatric Research*, 12 (2), 65-76.
- Friborg, O., Hjemdal., O., Rosenvinge, J. H., Martinussen, M., Aslaksen, P. M. & Flaten, M. A. (2006). Resilience as a moderator of pain and stress. *Journal of Psychosomatic Research*, 61, 213-219.
- Garland E. L. Fredrickson, B. L., Kringc, A. M., Johnson, D. P., Meyer, P. S. & Penn. D. L. (2010). Upward spirals of positive emotions counter downward spirals of negativity: Insights from the broaden-and-build theory and affective neuroscience on the treatment of emotion dysfunctions and deficits in psychopathology. *Clinical Psychological Review*, 30 (7), 849-864

- Gilman, R. & Huebner, S. (2003). A review of life satisfaction research with children and adolescents. *School Psychology Quarterly*, 18(2), 192-205.
- Goldstein, S. & Brooks, R. B. (2013). Why study resilience?, in Goldstein, S. & Brooks, R. B. (eds). *Handbook of resilience in children*. 2nd edition. New York: Springer, p, 3-14.
- Grant, K. E., Compas, B. E., Stuhlmacher, A. F., Thurm, A. E., McMahon, S. D. & Halpert, J. A. (2003). Stressors and child and adolescent psychopathology: Moving from markers to mechanisms of stress. *Psychological Bulletin*, 129 (3), 447-466
- Grant, K.E., Compas, B.E., Thurm, A.E., McMahon, S.D., & Gipson, P.Y. (2004). Stressors and child and adolescent psychopathology: Measurement issues and prospective effects. *Journal of Clinical Child and Adolescent Psychology*, 33 (2), 412-425...
- Haase, J. E. (2004). The Adolescent Resilience Model as a guide to interventions. Journal of *Pediatric Oncology Nursing*, 21(5), 289-299.
- Hampel, P. & Petermann, F. (2006). Perceived stress, coping, and adjustment in adolescents. *Journal of Adolescent health*, 38 (4), 409-415.
- Hellevik, O. (2008). Jakten på den norske lykken. Oslo: Universitetsforlaget
- Hjemdal, O., Friborg, O., Stiles., Martinussen, M. & Rosenvinge, J. H. (2006a). A new scale for adolescent resilience: Grasping the central protective resources behind healthy development. *Measurement and Evaluation in Counseling and Development*, 39 (2), 84-96
- Hjemdal, O., Friborg, O., Stiles, T. C., Rosenvinge, J. H. & Martinussen, M. (2006b).

 Resilience predicting psychiatric symptoms: A prospective study of protective factors and their role in adjustment to stressful life events. *Clinical psychology and psychotherapy*, 13 (3), 194–201.
- Hjemdal, O., Aune, T., Reinfjell, T. & Stiles, T. C. (2007). Resilience as a predictor of depressive symptoms: A correlational study with young adolescents. *Clinical Child Psychology and Psychiatry*, 12(1): 91-104.

- Hjemdal, O. (2009). *Measuring protective factors for adults and adolescents: The development of two resilience scales*. Doctoral thesis. Department of Psychology. Norwegian University of Science and Tecnology
- Holder, M. D., & Coleman, B. (2008). The contribution of temperament, popularity, and physical appearance to children's happiness. *Journal of Happiness Studies*. 9 (2), 279–302
- Holder, M.D. & Coleman, B. (2009). The contribution of social relationships to children's happiness. *Journal of Happiness Studies*, 10, (3), 329-349
- Johnson, J., & Sherman, M. (1997). Daily hassles mediate the relationship between major life events and psychiatric symptomatology: longitudinal findings from an adolescent sample. *Journal of Clinical and Consulting Psychology*, 16 (4), 389–404.
- Jose, P. E., & Ratcliffe, V. (2004). Stressor frequency and perceived intensity as predictors of internalizing symptoms: gender and age differences in adolescence. *New Zealand Journal of Psychology*, 33 (3), 145-154.
- Joyner, K., & Udry, J. R. (2000). You don't bring me anything but down: Adolescent romance and depression. *Journal of Health and Social Behavior*, 41 (4), 369–391.
- Kanner, A., Coyne, J., Shaefer, C., & Lazarus, R. (1981). Comparision of two modes of stress measurement: Daily hassles and uplifts versus major life events. *Journal of Behavioral Medicine*. 4(1), 1-39.
- Kuhn, D. (2009). Adolescents Thinking. In: Lerner, R.M. and Steinberg L. (eds). *Handbook of Adolescent Psychology. Vol. 1. Individual bases of adolescent development.* 3rd ed. New Jersey: John Wiley & Sons, Inc, p. 152-186.
- Landis, D., Gaylord-Harden, N. K., Malinowski, S. L., Grant, K. E., Carleton, R. A. & Ford, R.E. (2007). Urban adolescent stress and hopelessness. *Journal of Adolescence* 30(6), 1051-1070.
- Lazarus, R.S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer Publication.
- Lerner, J. V., Phelps, E., Forman, Y. & Bowers, E. P. (2009). Positive Youth Development. In: Lerner, R. M & Steinberg, L. (eds.). *Handbook of Adolescent Psychology. Vol. 1*.

- *Individual Bases of Adolescent Development*.3rd ed. New Jersey: John Wiley & Sons, Inc.
- Lerner, R. M & Steinberg, L. (2009). The Scientific Study of Adolescent Development:

 Historical and Contemporary Perspectives. In: Lerner, R. M. & Steinberg, L. (eds.).

 Handbook of Adolescent Psychology. Vol. 1: Individual Bases of Adolescent

 Development.3rd ed. New Jersey: John Wiley & Sons, Inc.
- Levin, K.A., Currie, C. & Muldoon, J. (2009). Mental well-being and subjective health of 11-to 15-year-old boys and girls in Scotland, 1994–2006. *European Journal of Public Health*, 19(6), 605–610.
- Lucas, R.E. & Diener, E. (2009). Personality and subjective well-being. *The science of well-being*, 37, 75-102.
- Luthar, S.S., Cicchettis, D. & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, 71 (3), 543-562
- Luthar, S. S., Sawyer, J. A., & Brown, P. J. (2006). Conceptual issues in studies of resilience: Past, present, and future research. *Annals of the New York Academy of Sciences*, 1094, 105-115.
- Lyubomirsky, S., Diener, E. & King, L. (2005a). The Benefits of Frequent Positive Affect:

 Does Happiness Lead to Success? *Psychological Bulletin*, 131 (6), 803–855
- Lyubomirsky, S., Sheldon, K.M. & Schkade, D. (2005b). Pursuing Happiness: The Architecture of Sustainable Change. *Review of General Psychology*, 9 (2), 111–131.
- Lyubomirsky, S. & Porta, D. (2010). Boosting happiness, buttressing resilience: Results from cognitive and behavioral interventions. In Reich, J. W., Zautra, A. J. and Hall, J. S. (eds.). *Handbook of adult resilience*. New York: The Guildford Press, p. 450-464
- Mahon, N. E. & Yarcheski, A. (2002). Alternative theories of happiness in early adolescents. Clinical Nursing Research, 11 (3), 306-323
- Mahon, N.E. Yarcheski, A. & Yarcheski, T.j. (2005). Happiness as related to gender and health in early adolescents. *Clinical Nursing Research*, 14 (2), 175-190

- Masten, A. S., Best, K. M., & Garmezy, N. (1990). Resilience and development:

 Contributions from the study of children who overcome adversity. *Development and Psychopathology*, 2 (4), 425-444.
- Masten, A. S. (2001). Ordinary magic. Resilience process in development. *American Psychologist*, 56(3), 227-238
- Masten, A. S., & Powell, J. L. (2003). A resilience framework for research, policy, and practice. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities*, New York: Cambridge University Press, p. 1–25.
- Masten, A. S., Hubbard, J. J., Gest, S. D., Tellegen, A., Garmezy, N., & Ramirez, M. (1999). Competence in the context of adversity: Pathways to resilience and maladaptation from childhood to late adolescence. *Development and Psychopathology*, 11 (1), 143-169.
- Masten, A. S. & Obradovic (2006). Competence and resilience in development. *Annals of the New York Academy of Sciences*, 53, 205-220
- Masten, A. S., Herbers, C.J., & Reed, M-G., (2009). Resilience in development, in, Lopez, S. J. Snyder, C.R. (eds.), *Oxford handbook of positive psychology*. 2nd ed. New York: Oxford university press, p.117-132.
- Masten, A.S & Narayan, A.J. (2012). Child Development in the Context of Disaster, War, and Terrorism: Pathways of Risk and Resilience. *Annual Review of Psychology*. 63, 227-257
- McIntosh, E., Gillanders, D. & Rodgers, S. (2010). Rumination, goal linking, daily hassles and life events in major depression. *Clinical Psychology and Psychotherapy*. 17, 33-43
- Moksnes, U. K., Moljord, I. E.O., Espnes, G. A., & Byrne, D. G. (2010). The association between stress and emotional states in adolescents: The role of gender and self-esteem. *Personality and Individual Differences*, 49(5); 430–435
- Moksnes, U. K., Løhre, A., Byrne D. G. & Haugan (2013). Satisfaction with life scale in adolescents: Evaluation of factor structure and gender invariance in a Norwegian sample. *Social Indicators Research*. DOI 10.1007/s11205-013-0451-3

- Moljord, I. E., Moksnes, U.K., Eriksen, L. & Espnes, G.A. (2011). Stress and happiness among adolescents with varying frequency of physical activity. *Perceptual and Motor Skills*, 113(2), 631-646
- Montpetit, M. A., Bergeman, C. S., Deboeck, P. R., Tiberio, S. S. & Boker, S. M. (2010). Resilience-as-process: Negative affect, stress, and coupled dynamical systems. *Psychology and Aging*, 25, (3), 631–640
- Natvig, G.K., Albrektsen, G., & Qvarnstrøm, U. (2003). Associations between psychosocial factors and happiness among school adolescents. *International Journal of Nursing Practice*, 9, 166-175
- Newcomb, M. D. & Harlow, L. L. (1986). Life events and substance use among adolescents: mediating effects of perceived loss of control and meaninglessness in life. *Journal of personality and social psychology*, 51(3), 564-577
- Nomura, Y., Chemtob, C. M., Fifer, W.P., Newcorn, J. H., Brooks-Gunn, J. (2006). Additive interaction of child abuse and perinatal risk as signs of resiliency in adulthood. *Annals of the New York Academy of Sciences*, 1094, 330-334.
- OECD (2012). OECD Better Life Index. OECD *Better Life Index: Norway*, Retrieved 21.01.2013, from http://oecdbetterlifeindex.org/countries/norway/
- O'Higgins, S., Sixsmith, J. & Gabhainn, S.N. (2010). Adolescent's perceptions of the words "health" and "happy". *Health Education*, 110 (5), 367-381.
- Olsson, C. A., Bond, L., Burns, J. M., Vella-Brodrick, D.A. & Sawyer, S. M. (2003).

 Adolescent resilience: a concept analysis. *Journal of Adolescence*, 26 (1), Pages 1–11
- Ong, A. D., Bergeman, C. S., Bisconti, T. L., & Wallace, K. A. (2006). Psychological resilience, positive emotions, and successful adaptation to stress in later life. *Journal of Personality and Social Psychology*, 91 (4), 730–749.
- Ozer, E.M., & Irwin, C.E. (2009). Adolescent and young adult health: From basic health status to clinical interventions. In: R.M. Lerner & L. Steinberg (eds.) *Handbook of Adolescent Psychology. Vol. 1. Individual bases of adolescent development.* 3rd ed. USA: John Wiley and Sons, Inc, p. 618-641

- Park, N. (2004). The role of subjective well-being in positive youth development. *The ANNALS of the American Academy of Political and Social Science*, 591(1), 25-39.
- Pinquart, M. (2009). Moderating effects of dispisitional resilience on associations between hassles and psychological distress. *Journal of Applied Developmental psychology*, 30 (1), 53-60.
- Piqueras, J. A., Kuhne, W., Vera-Villarroel, P., Van Straten, A. & Cuijpers, P. (2011).

 Happiness and health behaviors in Chilean college students: A cross-sectional survey.

 BMC Public Health, 11, 443.
- Proctor, C., Linley, P., & Maltby, J. (2010). Very happy youths: Benefits of very high life satisfaction among adolescents. *Social Indicators Research*, 98(3), 519–532.
- Rivara, F.P., Park, M.J. & Irwin, C.E. Jr. (2009). Trends in adolescent and young adult morbidity and mortality. In: DiClemente, R.J., Santelli, J.S. and Crosby, R.A. (eds.) *Adolescent health. Understanding and preventing risk behaviors*. San Fransisc: Jossey-Bass, p. 7-29.
- Rudolph, K.D. (2002). Gender differences in emotional responses to interpersonal stress during adolescence. *Journal of Adolescent Health*, 30, 3-13.
- Russel, M. & Davey, G. C. (1993). The relationship between life event measures and anxiety and is cognitive correlates. *Personality and Individual Differences*. 14(2), 317-322.
- Rutter, M. (2000). Resilience reconsidered: Conseptual considerations, empirical findings, and policy implications. In Shonkoff, J.P. & Meisels, S. J. (eds.). *Handbook of early childhood intervention*. 2nd ed. New York: Cambridge University Press, p. 651-682.
- Ryff, C. D., & Singer, B. (2003). Flourishing under fire: Resilience as a prototype of challenged thriving. In C. L. M. Keyes & J. Haidt (eds.), *Positive psychology and the life well-lived*. Washington, DC: APA, p. 15-36
- Sales, J.M. & Irwin, C. E. Jr. (2009). Theories of adolescent risk taking: the biopsychosocial model. In: DiClemente, R.J., Santelli, J.S. and Crosby, R.A. (eds.) *Adolescent health. Understanding and preventing risk behaviors*. San Fransisc: Jossey-Bass, p. 32-50.
- Santrock, J.W. (2008). Adolescence. 12th ed. New York, USA: McGraw-Hill Companies, Inc.

- Schiffrin, H.H. & Nelson, K.S. (2010). Stressed and happy? Investigating the relationship between happiness and perceived stress. *Journal of happiness studies*, 11, 33-39
- Scoloveno, R.L. (2013). An inverstigation of a theoretical model of resilience in middle adolescents. Doctoral thesisRutgers, The State University of New Jersey, Newmark, New Jersey
- Seery, M. D. (2011). Resilience: A silver lining to experiencing adverse life events? *Current Directions in Psychological Science*, 20 (6), 390-394
- Seiffge-Krenke I (2000). Causal links between stressful events, coping style, and adolescent symptomatology. *Journal of Adolescence*, 23 (6), 675–91.
- Seiffge-Krenke, I. (2006). Coping with relationship stressors: The impact of different working models of attachment and links to adaption. *Journal of Youth and Adolescence*, 35 (1), 25-39.
- Seiffge-Krenke, I., Aunola, K. & Nurmi, J-E. (2009). Changes in stress perception and coping during adolescence: the role of situational and personal factors. *Child Development*, 80(1); 259-279.
- Seiffge-Krenke, I. (2009). *Stress, coping, and relationships in Adolescence*. New York: Psychology Press
- Seiffge-Krenke, I. Bosma H., Chau C., Çok F., Gillespie C., Loncaric D., Molinar R., Chunha, M., Veisson M. & Rohail, I. (2010). All they need is love? Placing romantic stress in the context of other stressors: A 17-nation study. *International Journal of Behavioral Development*, 34 (2), 106-112
- Seiffge-Krenke, I. (2011). Coping with relationship stressors: A decade review. *Journal of research on adolescence*, 21(1), 196-210
- Seligman, M. E. P. (2008). Positive health. *Applied psychology: an international review*, 1 5(1), 3-18.
- Seligman, M. E. P. & Csikszentmihalyi, M. (2000). Positive psychology: an introduction. *American Psychology*, 55(1), 5-14,.

- Sheldon, K. M. & Lyubomirsky, S. (2005). Achieving sustainable new happiness: Prospects, practices and prescriptions. In: Linley, A. & Joseph, S. (eds), Positive psychology in practice. Hoboken, NJ: John Wiley & Sons, p. 127-145
- Shribman, S. (2007). Adolescence: An opportunity not to be missed. *Lancet*, 369, 1788-1799.
- Siahpush, M., Spittal, M. & Singh, G. (2008). Happiness and life satisfaction prospectively predict self-rated health, physical health, and the presence of limiting, long-term health conditions. *American Journal of Health Promotion*, 23 (1), 18-26
- Skrove, M., Romundstad, P. & Indredavik, M. S. (2013). Resilience, lifestyle and symptoms of anxiety in adolescence: the young –HUNT study. *Social Psychiatry and Psychiatric Epidemiology*, 48(3), 407-416
- Smetana, J.G., Campione-Barr, N. and Metzger, A. (2006). Adolescent development in interpersonal and societal contexts. *Annual Review of Psychology*, 57, 255-284
- Smetana, J.G. and Villalobos, M. (2009). Social Cognitive Development in Adolescence. In: Lerner, R.M. and Steinberg L. (eds). *Handbook of Adolescent Psychology. Vol. 1. Individual bases of adolescent development.* 3rd ed. New Jersey: John Wiley & Sons, Inc. P. 187-228.
- Souri, H. & Hasanirad, T. (2011), Relationship between Resilience, Optimism and Psychological Well-Being in Students of Medicine. *Procedia Social and Behavioral Sciences*, 30 (2011) 1541 1544
- Stawski, R. S., Sliwinski, M. J., Almeida, D. M. & Joshua M. Smyth (2008). Reported exposure and emotional reactivity to daily stressors: The roles of adult age and global perceived stress. *Psychology and Aging*. 23(1), 52–61
- Stefanek, E., Strohmeier, D., Fandrem, H. & Spiel, C. (2012). Depressive symptoms in native and immigrant adolescents: the role of critical life events and daily hassles. *Anxiety*, *Stress & Coping: An International Journal*, 25(2), 201-217.
- Steinberg, L.D. (2008). Adolescence. 8th ed. Boston: McGraw-Hill Higher Education.
- Suldo, S. M., & Huebner, E. S. (2006). Is extremely high life satisfaction during adolescence advantageous? *Social Indicators Research*, 78, 179–203

- Suldo, S.M., Shaunessy, E., & Hardesty, R. (2008). Relationships among stress, coping and mental health in high-achieving high school students. Psychology in the Schools, 45 (4), 273-290.
- Susman, E.J. and Dorn, L.D. (2009) Puberty. Its Role In Development. In: In: Lerner, R.M. and Steinberg L. (eds). *Handbook of Adolescent Psychology. Vol. 1, Individual bases of adolescent development.* 3rd ed. New Jersey: John Wiley & Sons, Inc, p.116-151
- Tugade, M. M. & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology*, 86(2), 320-333.
- Tusaie, K. & Dyer, J. (2004). Resilience: A historical review of the construct. *Holistic Nursing Practice*, 18(1), 3-8.
- Van de Wetering, E. J., van Exel, N. J. A., & Brouwer, W. B. F. (2010). Piecing the jigsaw puzzle of adolescent happiness. *Journal of Economic Psychology*, 31 (6), 923–935.
- Veenhoven, R. (2003). Happiness. Psychologist, 16(3); 128-129.
- Veenhoven, R. (2008). Healthy happiness: effects of happiness on physical health and the consequences for preventive health. *Journal of happiness studies*. 9 (3). 449-469
- Veenhoven, R. (2010). How universal is happiness? In Diener, E., Helliwell, J.F. & Kahneman, D. (eds). *International differences in well-being*. New York: Oxford university press, p: 328-351
- Veenhoven, R (2013), *Happiness in Norway (NO), World Database of Happiness*, Retrieved 22.01.2013, from http://worlddatabaseofhappiness.eur.nl.
- World Health Organization. (2005). *Promoting mental health: Concepts, emerging evidence, practice*. Summary report. Geneva: World Health Organization.
- Williams, P.G., Holmbeck, G.N., & Greenley, R.N. (2002). Adolescent health psychology, *Journal of Consulting and Clinical Psychology*, 70 (3), 828-842.
- Zautra, A. J. (2003). Emotions, stress, and health. New York: Oxford University Press

- Zautra, A. J., Hall, J. S., & Murray, K. E. (2010). Resilience: A new definition of health for people and communities. In J. W. Reich, A. J. Zautra, & J. S. Hall (eds.), *Handbook of adult resilience*. New York: Guilford Press, p. 3-29
- Zimmer-Gembeck, M. J., & Skinner, E. A. (2008). Adolescents' coping with stress: development and diversity. *Prevention Researcher*, 15 (4), 3-7.

Article II

Exploring the relationships among happiness, daily stress, and resilience in adolescents

Margaret Ness

Department of Social Work and Health Science Norwegian University of Science and Technology

Abstract: The present article intends to investigate happiness, daily stress and resilience in adolescents, and the relationship between these constructs. Although happiness, stress and resilience are important aspects of adolescents' life and mental health, no studies have explored the association between these variables. *Method:* This article analyzes a Norwegian cross-sectional sample of 1183 adolescents from 13-18 years. The analysis includes descriptive statistic, correlational analysis and multiple regression analysis. Results: Descriptive statistics showed that the adolescents had high mean levels of happiness and resilience, and moderate levels of mean stress. Adolescent boys had generally higher levels of happiness and resilience, and girls experienced higher levels of stress. Older adolescents experienced more stress and showed lower levels of resilience compared to the younger adolescents. Correlation analysis showed that increases in stress experiences were associated with a lower level of happiness. Higher resilience was associated with lower levels of stress and higher levels of happiness. The results relieved no support for resilience as a moderator of the association between daily stress and happiness. Conclusion: High levels of stress in daily life are related to lower happiness among adolescents. Higher resilience is related to lower levels of stress and higher happiness, but does not moderate the relationship between stress and happiness in Norwegian adolescents.

Key words: Adolescents, happiness, daily stress, resilience, moderation

1. INTRODUCTION

Adolescence is a complex period characterized by multiple changes and challenges, as well as new experiences and opportunities (Byrne, Davenport & Mazanov 2007; Call et al. 2002; Coleman 2011; Sales & Irwin 2009; Santrock 2008; Steinberg 2008; Susman & Dorn 2009). On the surface, the adolescent transitional period appears to be one of the healthiest periods in life (Call et al. 2002), partly due to traditional medical indicators and low morbidity and mortality rates (Ozer & Irwin 2009; Williams, Holmbech & Greenley 2002). Unfortunately, however, research on psychological problems has shown that they are some of the greatest threats to the adolescents' healthy development (Call et al. 2002; Costello et al. 2003; Graber & Sontag 2009; Patel et al. 2007) and pose consequences for adolescents' mental health and well-being both in the present and future (Call et al. 2002).

Happiness has a great influence on humans' mental health (Park 2004; Seligman 2008), and being happy is something most people desire in life (Baumeister et al. 2003; Diener 2000; Fordyce 1988; Lucas & Diener 2009). Happiness is the affective and cognitive evaluation of life (Veenhoven 2010) and is defined as an "overall appreciation of one's life as a whole" (Veenhoven 2010, p. 329). The term *happiness* is often used synonymously with the term *subjective well-being* (Diener 1994; Diener 2000; Diener, Oishi & Lucas 2009; Veenhoven 2010).

Many adolescents report being happy (Gilman & Huebner 2003; Hellevik 2008; Mahon, Yarcheski & Yarcheski 2005; Natvig, Albrektsen & Qvarnstrøm 2003; Piqueras 2011; van de Wetering et al. 2010). However, happiness seems to decrease over the course of adolescence (Csikszentmihalyi & Hunter 2003; Hellevik 2008), and empirical findings have found higher rates of happiness among younger adolescents compared to older ones (Moljord et al. 2011; Natvig, Albrektsen & Qvarnstrøm 2003; Piqueras 2011).

Happy adolescents have been found to be more physically active (Moljord et al. 2011; Piqueras 2011), have higher self-esteem (Baumeister et al. 2003; Cheng & Furnham 2003), and succeed more often in social relationships and academic achievement (Diener & Seligman 2002; Proctor, Linley & Maltby 2010). They also show less psychological and behavioral problems (Proctor, Linley & Maltby 2010; Suldo & Huebner 2006). In general, happiness has also been related to better physical health, success, and long life (Lyubomirsky, Diener & King 2005; Siahpush, Spittal & Singh (2008); Veenhoven 2008). Happiness is therefore not worth promoting only because of its direct value for adolescents' mental health but also for its value regarding positive outcomes in health and well-being later in life (Diener

2006; Diener & Chan 2011; Lyubomirsky, Diener & King 2005; Seligman 2008). Altogether, these findings makes happiness as an important health promoting aspect in research, especially in that of adolescence, when the foundation for health later in life is formed (Byrne, Davenport & Mazanov 2007; Ozer & Irwin 2009; Santrock 2008).

By contrast, *stress* is defined as a "particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" (Lazarus & Folkman 1984, p. 19). As a period of accumulated development and new experiences, adolescence brings with it various amounts of potential stressors, such as challenges and changes related to relationships with family, friends, and romantic partners, increased responsibility, higher school demands, and concerns about the future (Byrne, Davenport & Mazanov 2007; Moksnes et al. 2010a; Seiffge-Krenke 2000; Seiffge-Krenke, Aunola & Nurmi 2009). Although stressors caused by these changes and challenges represent a central, necessary, and normal part of adolescence (Coleman & Hagell 2007a; Santrock 2008; Suldo, Shaunessy & Hardesty 2008), experiencing simultaneous negative stressors represents a potential source of risk to adolescents' mental health and well-being (Byrne, Davenport & Mazanov 2007; Compas & Reeslund 2009; Grant et al. 2003; Seiffge-Krenke, Aunola & Nurmi 2009). The negative health effect of stress has been manifested in an array of studies, both cross-sectional and longitudinal, that have shown that stress is associated with psychological problems in adolescents (Charbonneau, Mezulis & Hyde 2009; Grant et al. 2004; Hampel & Petermann 2006; Pinquart 2009; Stefanek et al. 2012; Suldo, Shaunessy & Hardesty 2008). Especially during adolescence, the overall numbers of stressors tends to increase (Jose & Ratcliffe 2004; Seiffge-Krenke 2000). By gender, girls tend to report higher levels of daily stress compared to boys (Charbonneau, Mezulis & Hyde 2009; Hampel & Petermann 2006; Stefanek et al. 2012).

Research has shown that higher levels of stress in daily life are associated with lower levels of happiness among adolescents (Moljord et al. 2011; Natvig, Albrektsen & Qvarnstrøm 2003; Schiffrin & Nelson 2010). In this sense, the sum of multiple daily stressors may negatively influence well-being by posing a direct emotional effect (Almeida 2005; Zautra 2003). Uncontrollable and chronic stress may lead to longer-lasting frustrations and negative feelings such as hopelessness, loss of control, and meaninglessness, which in turn may prompt more serious problems, such as anxiety and depression (Coyle & Vera 2013; Landis et al. 2007; Newcomb & Harlow 1986; Zautra 2003).

Meanwhile, *resilience* refers to the protective factors, processes, and mechanisms that contribute to a good outcome despite experiences with stressors that pose significant risks for

developing psychopathology (Hjemdal et al. 2006a). High levels of resilience do not imply invulnerability to stress (Olsson et al. 2003) but an ability to cope by using protective resources inherent in the individual or existing in the environment (Friborg et al. 2003). The protective factors connected to resilience include personal resources and characteristics, a supportive family, and a supportive social environment (Hjemdal 2009; Hjemdal et al. 2006a). Characteristic for resilience is the focus on positive outcomes, healthy development, and strength in the face of risk (Tusaie & Dyer 2004; Fergus & Zimmerman 2005). Individuals' levels of resilience may vary during the adolescent developmental period (Fergus & Zimmerman 2005; Hjemdal 2009), and a positive outcome is never determined, but rather a process of negotiating vulnerabilities and strengths with changing developmental stages and circumstances (Hjemdal 2009). Though gender differences regarding resilience have received limited attention in research (Friborg et al. 2003), apparently boys tend to score higher in resilience compared to girls (Pinquart 2009; Scoloveno 2013; Skrove, Romindstad & Indredavik 2013; Yu et al. 2011).

Resilience in the relation to daily stress and normative conditions have not been emphasized in studies of resilience in adolescents (Ahern 2006; Ahern & Norris 2011; Davey, Eaker & Walters 2003; Ryff & Singer 2003), though such studies would add valuable information regarding the healthy development and well-being of adolescents (Ahern 2006; Compas & Reeslund 2009). In the context of daily stress, resilience is specifically indicated by the ability to quickly recover from the negative effects of daily stressors by reducing the negative emotions caused by a stressor (Almeida 2005; Diehl, Hay & Chui 2012; Zautra, Hall & Murray 2010) and by maintaining well-being in the face of continuous daily stressors (Zautra, Hall & Murray 2010). In fact, higher resilience among adolescents has been found to be associated with lower levels of daily stress (Abolghasemi & Varaniyab 2010; Ahern & Norris 2011; Pinquart 2009).

The positive outcome associated with resilience may be related to states of well-being (Haase 2004; Masten, Best & Garmezy1990). Resilience therefore positively influences well-being (Christopher & Kulig 2000; Haase 2004; Scoloveno 2013; Souri & Hasanirad 2011), and higher resilience is found to be associated with higher levels of well-being (Christopher & Kulig 2000; Couto, Koller & Novo 2011; Scoloveno 2013; Souri & Hasanirad 2011).

Resilience may have a direct influence on well-being (Haase 2004; Masten & Powell 2003) and the protective factors related to resilience, such as family factors, social factors, and personal factors (Hjemdal 2009; Hjemdal et al. 2006a; Olsson et al. 2003), are also found to be important predictors related to adolescent's happiness (Baumeister et al. 2003; Chaplin

2009; Cheng & Furnham 2002; Csikszentmihalyi & Hunter 2003; Demir, Ozdemir & Weitecamp 2007; Demir & Weitekamp 2007; Diener & Seligman 2002; Holder & Coleman 2009; van de Wetering et al. 2010). Resilience may also be a potential moderator of the negative effects of stress and the health outcomes (Almeida 2005; Fergus & Zimmerman 2005; Hjemdal 2006b; Pinquart 2009), which implies that resilience may buffer the negative effects of daily stress on adolescent's happiness. Due to the long-lasting and negative effects that daily stress can have on mental health and well-being, it is important to consider protective factors that can moderate this relationship (Aldwin 2007; Compas & Reeslund 2009; Zautra 2003).

Though many studies have focused on forms of unhappiness, such as anxiety and depression, considerably less attention has been given to the positive aspect of adolescence, such as happiness (Cheng & Furnham 2002; Proctor, Linley & Maltby 2010). This trend also applies to studies of stress, where few have focused on the association between stress and the positive aspects of mental health (Natvig, Albrektsen & Qvarnstrøm 2003; Suldo, Shaunessy & Hardesty 2008). Moreover, much of research addressing resilience has emphasized the avoidance of negative health outcomes, such as psychological, social, emotional, and physical problems, instead of focusing on the presence of positive health outcomes in the face of risk (Ryff & Singer 2003). Understanding the influence of stress and resilience is important to the knowledge of adolescents' mental health and well-being (Ahern 2006; Byrne, Davenport & Mazanov 2007; Schiffrin & Nelson 2010).

To the authors' knowledge, few empirical articles have been published regarding the relation between happiness, daily stress, and resilience in adolescents, and no research has yet been conducted to investigate whether resilience moderates the relationship between daily stress and happiness in adolescents. Investigating the relationship between happiness, daily stress, and resilience may nevertheless be critical to providing more knowledge of the impact of these constructs in relation to adolescents' mental health and healthy development.

This article thus aims to investigate daily stress, happiness, and resilience in adolescents, as well as the relationships among these constructs. This study will additionally gather important information about adolescents' mental health and well-being by focusing on adolescents aged from 13 to 18 years who each represent early, middle, or late adolescence (Steinberg 2008).

Based on the theoretical and empirical foundation discussed in Article I, this article aims to:

- 1) Investigate adolescents' levels of happiness, daily stress and resilience, and gender and age differences on these constructs.
- 2) Investigate the association between daily stress and happiness
- 3) Investigate the association between resilience and daily stress
- 4) Investigate the association between resilience and happiness
- 5) Investigate the potential moderation effect of resilience on the relationship between the experience of daily stress and happiness in adolescents.

2. METHODS

2.1. Participants

The data materials used in this cross-sectional study were provided by the survey titled "Children and Adolescents' Everyday Lives, Health, and Well-Being," which focuses on adolescents' daily lives, mental and physical health, as well as well-being and coping resources. In total, 1229 adolescents from six elementary schools and secondary schools, three urban and three rural, in Sør-Trønderlag and Nord-Trønderlag in Mid-Norway were invited to participate in the survey. A total of 1209 adolescents completed the questionnaire, providing a total response rate of 98.4%. All 26 participants younger than 13 years or older than 18 years were excluded, leaving an age range from 13 to 18 years and a total of 1183 participants for the analysis.

Of the participants, 606 (51.5%) were girls and 571 (48.5%) were boys (missing = 6), which shows a relatively equal proportion of both genders. The mean age for the sample was 15.6 years (SD=1.8). A t-test showed that the mean age for boys was 15.6 years (SD=1.8) and 16.5 years (SD=1.8) for girls. This very small age difference was not significant (t = -.419, df = 1175, p = .675).

2.2. Procedure

The survey was approved by the Norwegian Social Science Data Services (NSD) and Regional Committees for Medical Research Ethics (REK). Permission to participate in the survey was given from the principal of each school. Adolescents and their parents received a letter with information about the purpose of the survey, their anonymity and its voluntariness, as well as the confidentiality and right to withdraw. Passive consent from the participants was found to be sufficient given the non-sensitivity of the data collected. Because adolescents are seen as a potentially vulnerable group, the school nurse was available for students if they had any question after answering the questionnaire. Questionnaire administration was performed in whole classes on one occasion, in one section during school hours in September and October of 2008.

2.3. Measurements

Happiness was measured with the Fordyce Happiness Scale (1988), which is based on the work of Wessman and Ricks (1966) and was further improved and validated by Fordyce (1988). The Fordyce Happiness Scale consists of one item responded to on an 11-point self-report scale and three items assessing the self-report of the percentage of time that a

respondent feels happy, neutral, or unhappy. The present study used Fordyce's one-item scale that includes the 11-point happiness/unhappiness scale, which is a measure of the intensity and quality of happiness (Fordyce 1988). The question was, "How happy or pleased have you been during the last week?" and had 11 response categories: 0: extremely unhappy, 1: very unhappy, 2: quite unhappy, 3: moderately unhappy, 4: a little unhappy, 5: neutral, 6: a little happy, 7: moderately happy, 8: quite happy, 9: very happy and 10: extremely happy. The reliability of the scale is found to be good (Fordyce 1988). The test–retest correlation coefficient for the Fordyce Happiness Scale was found to be .98 for a 2 day period, .86 to .88 for a 2 week period, and .81 for 1 month for combination scores, and acceptable test–retest reliabilities ranged from .59 to .85 over time intervals of 1.5 to 15 weeks (Fordyce 1988; Toussaint & Friedman 2009).

Daily stress was measured using the Norwegian version of the Adolescent Stress Questionnaire (ASQ-N) (Moksnes et al. 2010a). This is a 58-item self-report scale developed by Byrne, Davenport & Mazanov (2007), with a 5-point scale from "not at all stressful" to "very stressful." Examples of some items include "disagreements with your dad"; "breakup with your sweetheart"; "arguments at home"; "keeping up with school work"; and "disagreements between you and your friends." The Adolescent Stress Questionnaire has been continuously developed and validated on adolescents during the last decades (Byrne, Davenport & Mazanov 2007; Moksnes et al. 2010a). The instrument has been successfully tested for use in a Norwegian adolescent sample (Moksnes et al. 2010a), and has established validity and reliability in measuring stress experiences among adolescents (Byrne, Davenport & Mazanov 2007; Moksnes et al. 2010a). The ASQ-N measures common adolescents' stressors in their daily lives and reflects a total of nine subgroups of daily stress (Moksnes et al. 2010a). As in the studies of Mazanov and Byrne (2008), Moksnes et al. (2010b), and Moljord et al. (2010), responses were summarized to give a total sum score, showing a minimum score of 58 and a maximum score of 263 where a higher score indicated higher perceived stress. The internal consistency for all 58 items in the stress scale was satisfactory with α .97.

Resilience was measured by using the Resilience Scale for Adolescents (READ) developed by Hjemdal et al. (2006), and is based on the Resilience Scale for Adults (RSA) (Friborg et al. 2003). This scale is a 28-item self-report scale, with a 5-point scale from "totally agree" to "totally disagree." Examples of some items are "I have some close friends/family members that really care about me"; "I am satisfied with my life now"; and "I reach my goals if I work hard." All items were reversed so that a higher value for each item

indicated a higher resilience. READ consists of five subscales: 1) personal competence, 2) social competence, 3) structured style, 4) family cohesion, and 5) social resources (Hjemdal 2009). For this study, a sum score for resilience was calculated, showing a minimum score of 28, and a maximum score of 140, and a higher score reflected higher resilience. Evidence for reliability and validity of READ has been found to be satisfying (Hjemdal et al. 2006; Hjemdal et al. 2007; von Soest et al. 2010). Cronbach's coefficient alpha measure of internal consistency has ranged from 0.70 to 0.90 in studies using the READ scale, and appears to be an applicable instrument for measuring resilience in adolescents (Hjemdal et al. 2006; Hjemdal et al. 2011; von Soest et al. 2010). Cronbach's alpha in the present study was .94 for all 28 items.

Demographics included questions about gender and age. Gender was dichotomized with the codes 0=girl and 1=boy. The age item was originally typed in as year of birth and was therefore recoded into age items. The ages were also divided into three groups to analyze possible age differences according to the following codes: 1 = 13 to 14 years; 2 = 15 to 16 years; and 3 = 17 to 18 years. Other socio-demographic variables were not included in the analysis.

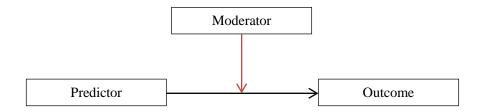
2.4. Statistical analysis

Statistical analyses were computed using SPSS for Windows, version 20.0 (SPSS Inc., Chicago, IL, USA). Since the missing percentage varies between different relevant items, the sample size therefore varied from 676 to 1083 in the analysis. Cronbach's α were computed to test the internal consistency for all variables used. Descriptive statistics were calculated to investigate the distribution of gender and age, as well as the mean and standard deviations for all continuous variables in the study. First, crosstabs were conducted to produce the distribution of age and gender. An independent sample t-test was conducted to investigate whether there were any mean score differences within the test variables between genders. Second, Pearson's r correlation was calculated to estimate the association between happiness, daily stress, and resilience. Age was included in the correlation to assess whether there were any age differences in the variables. Hierarchical multiple regression analysis controlled for gender and age was used to investigate the predicted influence of stress and resilience on happiness, as well as to investigate resilience as a potential moderator between daily stress and happiness. An interaction term was created to represent the moderation effect. The variables were centered before entering the interaction term to avoid problems with multicollinearity. Multicollinearity occurs when there is a strong correlation between two or

more predictors (Field 2013) and the interaction term that is not reduced by centering variables pose a problem for identifying the moderating effects (McClelland & Judd 1993). There were no indications of multicollinearity after centering the variables, with VIF ranging from 1.0 to 1.2 and tolerance ranging from .84 to 1.00 (Field 2013).

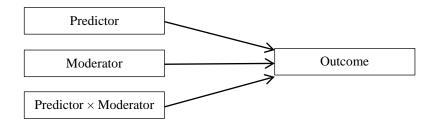
Moderation hypotheses are commonly examined by including an interaction term in analysis of variance or in regression analyses (Baron & Kenny 1986). As illustrated in Figure 1, a moderator variable affects the relationship between two other variables. Moderation occurs when the effect of an independent variable on a dependent variable varies according to the level of a third variable (i.e., the moderator variable), which interacts with the independent variable (Baron & Kenny 1986; James & Brett 1984). The strength and/or direction of the relationship between an independent or predictor variable and a dependent or criterion variable is affected by the moderator (Benny & Kenny 1986; Field 2013). This implies that moderation occurs when the relationship between two variables changes as a function of a third variable (Field 2013; James & Brett 1984). In this case, the strength or direction of the relationship between adolescent's daily stress and happiness may be affected by resilience as a moderator.

Figure 1 General conceptual model of moderation (Field 2013)



Statistically, moderation is shown by an interaction effect between variables and is tested using regression analyses (Baron & Kenny 1986; Field 2013). Figure 2 shows the statistical moderation, in which the outcome is predicted from the predictor variable, the potential moderator, and the interaction of the two (Field 2013). The moderating effect of a variable is supported if the interaction of the predictor and moderator is significant (Baron & Kenny 1986), but the predictor and moderator must also be included for the interaction term to be valid (Field 2013).

Figure 2 Statistical model of moderation (Field 2013)



3. RESULTS

3.1. Descriptive results

Table 1 shows the distribution of gender and age divided into three groups and indicates a relatively equal proportion of both genders in each of the three age groups. Table 2 shows descriptive statistics on the continuous variables of happiness, daily stress, resilience, and gender. The mean scores for the whole sample for happiness were 7.3, and the mean score for stress was 132.4 and 105.6 for resilience. However, the standard deviation on daily stress and resilience show some level of spread in the sample.

The first aim was to investigate gender and age differences on happiness, daily stress, and resilience among the adolescents, as well as adolescents' levels of these variables. Independent sample t-test showed that boys had significantly higher mean happiness and mean resilience than girls, and conversely, that girls had significantly higher mean daily stress than boys. Age differences were examined in the correlation matrix (Table 3), and results showed that age correlated significantly with daily stress and resilience, for which the younger adolescents reported higher resilience (r = -.098, p < .01) and older adolescents reported higher levels of daily stress (r = .144, p < .01).

Table 1 Distribution of age and gender (N=1177)

Age	Girls	%	Boys	%	Total	%
13-14 yr	201	17.1	186	15.8	387	32.9
15-16 yr	193	16.4	180	15.3	373	31.7
17-18 yr	212	18.0	205	17.4	417	35.4
	606	51.5	571	48.5	1177	100

Table 2 Mean, standard deviation and mean gender differences among study variables (N=852-1083)

	Range	M (SD)	Girls (SD)	Boys (SD)	T-value
Happiness	0-10	7.3 (2.0)	7.0 (2.1)	7.6 (1.9)	-4.650**
Daily stress	58-263	132.4 (43.0)	138.8 (43.8)	125.0 (40.8)	4.735**
Resilience	28-140	105.6 (18.3)	104.5 (17.0)	106.9 (19.3)	-1.991**

Note: ** = p < .05, cases are excluded pairwise

3.2. Pearson's r correlation analysis

To estimate the association between daily stress and happiness, resilience, and happiness, as well as between daily stress and resilience, a Pearson's r correlation coefficient was computed. As shown in Table 3, all variables had a significant correlation. Results showed a moderate negative correlation between the independent variable daily stress and the dependent variable happiness (r = -.316, p < .01). Resilience and daily stress also showed a moderate negative correlation (r = -.366, p < .01). The correlation matrix showed a relatively strong positive correlation between resilience and happiness (r = .480, p < .01). Daily stress and happiness had a negative correlation, meaning that increased levels of daily stress are correlated with decreased happiness. Resilience and daily stress also had a negative correlation, meaning that higher resilience is associated with lower levels of daily stress. Resilience and happiness showed the strongest relation, meaning that higher resilience is related to higher happiness.

Table 3 Pearson correlations (2 tailed) between happiness, daily stress and resilience

	1.	2.	3.	4.
1. Happiness	1	316***	.480***	007
2. Daily stress		1	366***	.144***
3. Resilience			1	098***
4. Age				1

Note: N=697-1183, cases are excluded pairwise, *** = p < .01

3.3. Multiple regression analysis

Table 4 presents the results from the hierarchical multiple regression analysis that investigated the association between stress, resilience, and happiness controlled for gender and age. Gender and age were entered the first step. Gender showed a significant positive association with happiness in all steps of the regression analysis, where boys scored higher than girls. Age did not show any significant association with happiness in any of the steps in the model. Daily stress was included in the second step and showed a weak negative association with happiness ($\beta = -.289$, p < .01), indicating that gender in combination with stress is significantly associated with happiness. In the third step, resilience was entered and showed a positive association with happiness ($\beta = .411$, p <.01). The beta weight for the stress variable was reduced, but still significant when resilience was added in the third step. Finally,

the interaction term was included in the fourth step. Moderation is shown by a significant interaction effect, and as shown in Table 3, this study found no significant moderating effect of resilience (β = .000, p = .998). This result indicates that the strength of the association between daily stress and happiness does not depend on the level of resilience. The beta weight in the fourth step showed that resilience exerted the highest explanatory value on happiness. This result was also shown by the R^2 , which showed that gender and age explained 2.7% of the variance in happiness and that stress, gender, and age explained 10.6% of the variance. Resilience, stress, gender, and age explained 25% of the variance, while resilience alone explained 14.5%. Gender, age, stress, resilience, and the interaction term also explained 25% of the variance, which confirmed that resilience did not interact with the association between daily stress and happiness.

Table 4 Hierarchical multiple regression analysis (N=676, cases are excluded listwise)

		Happiness				
		В	SE B	β	p	
Step 1	Constant	6.841	.730	•		
	Gender	.672	.151	.169	.000	
	Age	033	.043	029	.452	
Step 2	Constant	6.354	.702			
	Gender	.502	.147	.126	.001	
	Age	.013	.042	.012	.754	
	Stress	014	.002	289	.000	
Step 3	Constant	6.021	.643			
	Gender	.461	.134	.116	.001	
	Age	038	.039	.033	.328	
	Stress	007	.002	143	.000	
	Resilience	.046	.004	.411	.000	
Step 4	Constant	6.020	.648			
	Gender	.461	.134	.116	.001	
	Age	.038	.039	.033	.329	
	Stress	007	.002	143	.000	
	Resilience	.046	.411	.411	.000	
	Stress x Resilience	.000	.000	.000	.998	

Note: B= Unstandardized Coefficients, β = Standardized Coefficients, Adjusted R²: step 1= .027, step 2= .106, step 3= .251, step 4= .250

4. DISCUSSION

Several important findings emerged from this study. First, and in line with the first aim, an investigation of the adolescents' mean level of happiness, daily stress, and resilience was conducted. Results showed that the adolescents were happy, which is consistent with previous studies (Huebner et al. 2005; Mahon, Yarcheski & Yarcheski 2005; Mahon & Yarcheski 2002; Moljord et al. 2011; Natvig, Albrektsen & Qvarnstrøm 2003; Piqueras 2011; van de Wetering et al. 2010). Further on, the results showed that the adolescents experienced moderate levels of daily stress, as also found in previous research (Ahern & Norris 2011; Moljord et al. 2011). On average, this sample of adolescents also reported relatively high levels of resilience, which agrees with previous findings reporting moderate to high levels of resilience among adolescents (Ahern & Norris 2011; Pinquart 2009; Scoloveno 2013; Yu et al. 2011).

The second part of the first aim was to investigate gender and age differences in happiness, daily stress, and resilience. Results showed that adolescent boys reported significantly higher levels of happiness than girls, although the difference was small. This finding is in accordance with previous studies (Levin, Currie & Muldoon 2009; Moljord et al. 2011). Possible explanations for why girls report lower levels of happiness include the fact that females generally experience positive and negative emotions more frequently and more intensely than males (Diener & Ryan 2009). Adolescent girls are more likely to experience more depressive symptoms, as well as sadness, shame and guilt, and report more intense emotions, whereas boys are more likely to deny the experience of these negative emotions (Ruble, Martin & Berenbaum 2006). Results showed no significant age differences in happiness, contrary to previous studies reporting higher happiness among younger adolescents (Csikszentmihalyi & Hunter 2003; Moljord et al. 2011; Natvig, Albrektsen & Qvarnstrøm 2003; Piqueras 2011). A possible explanation for the non-significant age differences in happiness may be due to that the sample was drawn from two single counties in Mid-Norway, which may be associated with a relatively homogeneous group. Another possible explanation is that the sample merely consists of adolescents, who as a group may express some similarities in regard to developmental changes and challenges. This similarity can lead to relatively equal and thus non-significant levels of happiness during adolescence. However, by comparing adolescents to other age groups, happiness may show significantly different age results.

Furthermore, results showed that girls reported considerably higher mean levels of daily stress than boys, which is consistent with previous empirical evidence (Byrne, Davenport & Mazanov 2007; Charbonneau, Mezulis & Hyde. 2009; Hampel & Petermann 2006; Moksnes et al. 2010b; Moljord et al. 2011; Pinquart 2009; Stefanek et al. 2012). During adolescence, girls appear to show higher sensitivity to stressors, experience stressors as more intensely problematic, and experience higher negative emotional reactions to stressors compared to boys (Charbonneau, Mezulis & Hyde; Hampel & Petermann 2006; Jose & Ratcliffe 2004; Rudolph 2002). Age correlated significantly with daily stress, and older adolescents experienced higher levels of daily stress than younger adolescents. Explanations for this finding may derive from the increased responsibility and autonomy that come with increasing age during the developmental period, which may further lead to more challenges (Byrne, Davenport & Mazanov. 2007). Increased stress during adolescence may also reflect the fact that, as adolescents grow older, they need to make more important decisions that have consequences for their futures (Byrne, Davenport & Mazanov 2007; Seiffge–Krenke, Aunola & Nurmi 2009).

The results also showed that boys reported significant higher resilience compared to girls, which is in line with previous findings (Pinquart 2009; Scoloveno 2013; Skrove, Romindstad & Indredavik 2013; Yu et al. 2011). Due to the little attention given to gender differences in studies of resilience, finding explanations to account for gender differences is difficult (Friborg et al. 2003). More research is therefore needed to explain these findings (Scoloveno 2013), though apparently boys and girls seem to be affected by a somewhat different range of protective factors and thus respond differently when faced with stress (Coleman & Hagell 2007b). Empirical findings show that boys use more personal resources and that girls generally use more social support and external resources as protective factors (Hjemdal et al. 2006a; Hjemdal et al. 2011; von Soest 2010). Older adolescents in this sample were found to have lower resilience than younger adolescents, contrary to previous findings showing higher resilience among older adolescents (Pinquart 2009; Yu et al. 2011). Although resilience is a broadly used concept in research, it has no common underlying theoretical definition, and studies therefore vary considerably in their definitions and measurements. This discrepancy complicates the evaluation and comparison of the findings (Ahern et al. 2006; Davydov et al. 2010; Hjemdal 2009).

The second, third, and fourth aims were to investigate the associations between the three main constructs. Results showed that daily stress was moderately and negatively correlated with happiness, which has also been supported by other studies (Moljord et al.

2011; Natvig, Albrektsen & Qvarnstrøm 2003; Piqueras et al. 2011; Schiffrin & Nelson 2010). It is therefore reasonable to believe that daily stress in sum may be a potential threat to adolescents' happiness. Results also showed that higher resilience was positively correlated with happiness, indicating that resilience has a positive role in relation to adolescents' well-being (Christopher & Kulig 2000; Scoloveno 2013; Souri & Hasanirad 2011). Lower levels of stress were found to be negatively correlated with resilience, indicating that higher levels of resilience are related to lower levels of daily stress, which is in line with previous empirical findings (Abolghasemi & Varaniyab 2010; Ahern & Norris 2011; Montpetit et al. 2010; Pinquart 2011) and shows that resilience is a resource that implies that individuals have the capacity to cope with stress effectively (Ahern & Norris 2011; Blum & Blum 2009; Pinquart 2009; Ryff & Singer 2003).

Finally, the fifth aim was to investigate resilience as a potential moderator on the negative association between daily stress and happiness. The results showed no significant interaction effects, indicating that the role of daily stress in relation to adolescents' happiness in this sample does not depend on whether adolescents have high levels of resilience. Though both resilience and daily stress exert separate influences and are shown to be significant predictors of happiness, they do not interact. Daily stress has a negative and pernicious influence on adolescents' happiness, but resilience does not buffer this negative effect. Explanations for the non-significant buffering effect of resilience are not obvious. The focus in this study was also on overall resilience, not on the different protective factors of resilience as potential moderators. The READ-scale consists of five subscales related to the protective factors of resilience, and previous findings have shown that some of the protective factors of resilience are independently associated with buffering effects between stressful life events and psychiatric symptoms (Hjemdal et al. 2006b). It is therefore reasonable to believe that some of the subscales related to the protective factors of resilience may be independently moderators on the relationship between daily stress and happiness. Moreover, this study also focused on overall stress, not on the specific subgroups related to daily stress. Resilience may therefore also be a moderator in the relations between different subgroups of stress and happiness. However, more studies should be conducted in order to further assess and possibly confirm the moderating role of resilience in the face of daily stress. The findings in this study may also indicate that there might be other potential moderators in the relation between daily stress and happiness in adolescents.

4.1. Strengths and limitations

Several strengths in this study must be considered. First, the study has a large sample size and a high response rate of 98.4%. Second, the study builds on the use of well-established instruments, showing good reliability and validity. Third, given the findings of the associations between daily stress, happiness and resilience, as well as that the study was not conducted on an adolescent sample before, the topic has high societal and empirical relevance. The findings also present a more comprehensive picture of happiness, daily stress, and resilience in adolescents compared to similar studies. Moreover, some of the results in the study might also strengthen what is already known.

However, there are also some limitations in this study that should be acknowledged. First, the sample was drawn from two single counties in Mid-Norway. Possible problems arising from a homogeneous sample could have been reduced by including schools from very different counties across the country. Second, the findings are based on self-report data with only one time assessment of adolescents' subjective experiences of happiness, daily stress, and resilience, which may lead to potential self-report biases, such as social desirability (Ahern et al. 2006; Lucas & Diener 2009). Self-reports of happiness have especially been criticized as a methodological weakness (Diener, Oishi & Lucas 2009; Lucas & Diener 2009). However, since happiness is a subjective phenomenon, self-reports are therefore appropriate (Baumeister 2003; Sheldon & Lyubomirsky 2005). Third, the present study was based on cross-sectional data, which does not give any conclusions deriving from causality. Fourth, several other variables excluded in the analysis or questionnaire may have been important predictors of happiness and/or significant moderators of the relation between daily stress and happiness. Finally, because the sample consists of adolescents, no socioeconomic variables were included in the questionnaire. There are several findings that show that socioeconomic differences (e.g., income and education) are associated with decreased happiness (Frey & Stutzer 2002; Gerdtham & Johannesson 2001), and thus parents' socioeconomic status could have been of interest in regard to adolescents' level of happiness.

5. CONCLUSION AND RECOMMENDATIONS

The results of this study are partly consistent with several previous findings. It revealed that adolescents from Mid-Norway, aged from 13 to 18 years, generally have high levels of happiness and resilience and experience moderately levels of daily stress. The results show that adolescent boys reported higher mean levels of happiness and resilience compared to girls and that adolescent girls experience higher mean levels of daily stress. It also revealed that younger adolescents experience less stress and show higher resilience than older adolescents. A clear significant association was found between increased levels of stress and lower levels of happiness. Another significant association was found between higher levels of resilience and lower levels of daily stress. However, the study did not find empirical evidence to corroborate the idea that resilience buffers the effects of daily stress experiences on adolescents' happiness.

The results in this study nevertheless provide important information about the factors associated with adolescents' happiness. Considering that higher levels of daily stress are related to decreased happiness, an important way to promote happiness would be to reduce the levels of daily stress in adolescents (Schiffrin & Nelson 2010). However, given the limited control that can be gained over adolescents' exposure to daily hassles and the normative stressors they face during this accumulative developmental period, interventions to enhance adolescents' ability to cope with daily life stressors is highly relevant (Suldo, Shaunessy & Hardesty 2008). Future research on potential moderation variables that buffer the relationship between stress and happiness could provide important information about how to reduce the negative health effects of stress in adolescents, as well as clarify how interventions strategies may be formed to promote happiness among adolescents. Future research should investigate the protective factors of resilience as potential moderators of the relationship between daily stress and happiness. Resilience of adolescents has been studied in particular relation to periods of maltreatment, disasters, family disruptions, and learning abilities. Though there is a great quantity of literature addressing adolescent resilience, more empirical evidence regarding resilience in healthy adolescents faced with daily stress is necessary.

The associations identified in this study should also be further investigated in longitudinal studies that intend to obtain greater insight into the associations between resilience, daily stress and happiness and these associations' changes over time. Determinants of adolescents' happiness is an interesting research topic that deserves more attention in the

future and will hopefully provide information about how to enhance individual happiness. Acknowledging this topic is important for adolescent health and development, as well as society as a whole.

REFERENCES

- Abolghasemi, A. & Varaniyab, S.T. (2010). Resilience and perceived stress: predictors of life satisfaction in the students of success and failure. *Procedia Social and Behavioral Sciences*, 5: 748-752
- Ahern, N.R. (2006). Adolescent Resilience: An evolutionary concept analysis. *Journal of Pediatric Nursing*, 21(3); 175-185
- Ahern, N. R., Kiehl, E.M., Lou Sole, M. & Byers, J.A. (2006). A review of instruments measuring resilience. *Issues in Comprehensive Pediatric Nursing*, 23, 103-25.
- Ahern, N. R. & Norris, A. E. (2011). Examining factors that increase and decrease stress in adolescent community college students. *Journal of Pediatric Nursing*, 26 (6), 530–540
- Almeida, D. M. (2005). Resilience and vulnerability to daily stressors assessed via diary methods. *Current Directions in Psychological Science*, 14(2): 64-68
- Aldwin, C. (2007). *Stress, coping and development: An integrative perspective*. 2nd ed. New York: Guilford
- Baron, R. M. & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, Vol. 51(6), p 1173-1182.
- Baumeister, R.F., Campbell, J.D., Krueger, J.I., & Vohs, K.E. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles?

 *Psychological Science in the Public Interest, 4(1), 1-44
- Blum, L.M. & Blum, R.WM. (2009). Resilience in adolescence, In DiClemente, R.J., Santelli,J.S. & Crosby, R.A. (eds.). Adolescent health. Understanding and preventing riskbehaviors. San Francisco: John Wiley & Sons, p. 51-76
- Byrne, D. G., Davenport, S. C. & Mazanov, J. (2007). Profiles of adolescent stress: The development of the adolescent stress questionnaire (ASQ). *Journal of Adolescence*, 30(3), 393-416.
- Call, K.T., Riedel, A.A., Hein, K., McLoyd, V., Petersen, A. & Kipke, M. (2002). Adolescent health and well-being in the twenty-first century: A global perspective. *Journal of Research on Adolescence*, 12(1), 69-98.

- Chaplin, L.N. (2009). Please may I have a bike? Better yet, may I have a hug? An examination of children's and adolescents' happiness. *Journal of Happiness Studies*, 10 (5); 541-562
- Charbonneau, A. M., Mezulis, A. H. & Hyde, J.S. (2009). Stress and emotional reactivity as explanations for gender differences in adolescents' depressive symptoms. *Journal of Youth Adolescence*, 38(8); 1050-1058
- Cheng, H., & Furnham, A. (2002). Personality, peer relations, and self-confidence as predictors of happiness and loneliness. *Journal of Adolescence*, 25(3), 327–339.
- Cheng, H., & Furnham, A. (2003). Personality, self-esteem, and demographic predictions of happiness and depression. *Personality and Individual Differences*, 34 (6), 921–942.
- Christopher, K., & Kulig, J. (2000). Determinants of psychological well-being in Irish immigrants. *Western Journal of Nursing Research*, 22(2), 123-143.
- Coleman, J. & Hagell, A. (2007a). The nature of risk and resilience in adolescence. In Cileman, J. & Hagell, A. (eds.). *Adolescence, risk and resilience. Against the odds*. Chichester: John Wiley & Sons Ltd, p. 1-16.
- Coleman, J. & Hagell, A. (2007b). Adolescence, risk and resilience: a conclusion. In Cileman, J. & Hagell, A. (eds.). *Adolescence, risk and resilience. Against the odds*. Chichester: John Wiley & Sons Ltd, p. 165-174.
- Coleman, J. (2011). The nature of adolescence. 4th ed. New York: Psychology press
- Compas, B.E., & Reeslund, K.L. (2009). Processes of risk and resilience during adolescence.

 In: R.M. Lerner & L. Steinberg (eds.) *Handbook of adolescent psychology. Vol. 1. Individual bases of adolescent development.* 3rd ed. New Jersey: John Wiley and Sons,
 Inc, p. 681-588
- Costello E. J., Mustillo S., Erkanli A., Keeler G., & Angold A.(2003). Prevalence and development of psychiatric disorders in childhood and adolescence. *Archives of Generally Psychiatry*, 60 (8), 837–44.
- Couto, M.C. P., Koller, S.H. & Novo, R. (2011). Stressful life events and psychological well-being in a Brazilian sample of older persons: the role of resilience. *Ageing International*, 36 (4), 492-505

- Csikszentmihayi, M. & Hunter, J. (2003). Happiness in everyday life: The uses of experience sampling. *Journal of Happiness studies*, 4(2), 185-199.
- Davey, M., Eaker, D.G. & Walters, L.H. (2003). Resilience processes in adolescents: personality profiles, self-worth, and coping. *Journal of Adolescent Research*. 18 (4), 347-362
- Davydov, D.M., Stewart, R., Ritchie, K. & Chaudieu, I. (2010). Resilience and mental health. Clinical Psychology Review, 30 (5); 479–495
- Demir, M., Ozdemir, M., & Weitekamp, L. A. (2007). Looking to happy tomorrows with friends: Best and close friendships as they predict happiness. *Journal of Happiness Studies*, 8(2), 243–271.
- Demir, M. & Weitekamp L. A. (2007). I am so happy cause today I found my friend: Friendship and personality as predictors of happiness. *Journal of Happiness Studies*. 8(2), 181–211
- Diehl, M., Hay, E. L. & Chui, H. (2012). Personal risk and resilience factors in the context of daily stress. *Annual Review of Gerontology and Geriatrics*, 32, (1), 251-274
- Diener, E. (1984). Subjective well-being. Psychological Bulletin, 95(3), 542–575.
- Diener, E. (2000). Subjective Well-Being: The Science of Happiness and a Proposal for a National Index. *American Psychologist*, Vol. 55(1), 34-43.
- Diener, E. & M.E.P. Seligman (2002). Very happy people, *Psychological Science* 13(1), 81–84.
- Diener, E. (2006). Guidelines for National Indicators of Subjective Well-Being and Ill-Being. Applied Research in Quality of Life, 1(2), 151–157
- Diener, E. & Chan, M. Y. (2011). Happy People Live Longer: Subjective Well-Being Contributes to Health and Longevity. *Applied Psychology: Health and Well-Being*. 3(1),1-43.
- Diener, E. Oishi, S. & Lucas, R. E. (2009). Subjective well-being: The science of happiness and life satisfaction, in Lopez, S. J. Snyder, C.R. (eds.), *Oxford handbook of positive psychology*. 2nd ed. New York: Oxford university press, p. 187-194.

- Diener, E. & Ryan, K. (2009). Subjective well-being: a general overview. *South African Journal of Psychology*, 39(4), 391-406
- Fergus, S. & Zimmerman, M.A. (2005). Adolescent resilience: A framework for understanding healthy development in the face of risk. *Annual Review of Public Health*, 26, 399-419
- Field, A. (2013). *Discovering Statistics Using SPSS*. 4th ed. Los Angeles: SAGE Publications Ltd.
- Fordyce, M. (1988). A review of research on the happiness measure: a sixty second index of happiness and mental health. Social Indicators Research, 20 (4), 355-381
- Frey, B.S & Stutzer, A (2002). *Happiness and economics: How the economy and institutions affect human well-being*. New Jersey: Princeton University Press
- Friborg, O. Hjemdal, O. Rosenvinge, J. H., Martinussen, M. (2003). A new rating scale for adult resilience: what are the central protective resources behind healthy adjustment? *International Journal of Methods in Psychiatric Research*, 12 (2), 65-76.
- Gerdtham, U. G., & Johannesson, M. (2001). The relationship between happiness, health, and socio-economic factors: Results based on Swedish microdata. *Journal of Socio-Economics*, 30 (6), 553–557.
- Gilman, R. & Huebner, S. (2003). A review of life satisfaction research with children and adolescents. *School Psychology Quarterly*, 18(2), 192-205.
- Graber, J.A., & Sontag, L.M. (2009). Internalizing problems during adolescence. In: R.M. Lerner & L. Steinberg, *Handbook of adolescent psychology*, 3rd edition . New Jersey: John Wiley and Sons, Inc, p. 642-682
- Grant, K. E., Compas, B. E., Stuhlmacher, A. F., Thurm, A. E., McMahon, S. D. & Halpert, J.A. (2003). Stressors and schild and adolescent psychopathology: Moving from markers to mechanisms of stress. *Psychological Bulletin*, 129 (3), 447-466
- Grant, K.E., Compas, B.E., Thurm, A.E., McMahon, S.D., & Gipson, P.Y. (2004). Stressors and child and adolescent psychopathology: Measurement issues and prospective effects. *Journal of Clinical Child and Adolescent Psychology*, 33 (2), 412-425.

- Haase, J. E. (2004). The Adolescent Resilience Model as a guide to interventions. Journal of *Pediatric Oncology Nursing*, 21(5), 289-299.
- Hampel, P. & Petermann, F. (2006). Perceived stress, coping, and adjustment in adolescents. *Journal of Adolescent health*, 38 (4), 409-415.
- Hellevik, O. (2008). Jakten på den norske lykken. Oslo: Universitetsforlaget
- Hjemdal, O., Friborg, O., Stiles, T. C., Martinussen, M., & Rosenvinge, J. H. (2006a). A new scale for adolescent resilience: grasping the central protective resources behind healthy development. *Measurement and Evaluation in Counseling and Development*, 39 (2), 84–96.
- Hjemdal, O., Friborg, O., Stiles, T. C., Rosenvinge, J. H. & Martinussen, M. (2006b).

 Resilience predicting psychiatric symptoms: A prospective study of protective factors and their role in adjustment to stressful life events. *Clinical psychology and psychotherapy*, 13 (3), 194–201.
- Hjemdal, O. Aune, T., Reinfjell, T., Stiles, T. & Friborg, O. (2007). Resilience as a predictor of depressive symptoms: A correlational study with young adolescents. *Clinical Child Psychology and Psyciatry*, 12 (1), 91-104
- Hjemdal, O. (2009). Measuring protective factors for adults and adolescents: The development of two resilience scales. Doctoral thesis. Department of Psychology.Norwegian University of Science and Tecnology.
- Hjemdal, O., Vogel, P. A., Solem S., Hagen, K., and Stiles T.C. (2011). The relationship between resilience and levels of anxiety, depression, and obsessive-compulsive symptoms in adolescents. *Clinical Psychology & Psychotherapy*, 18(4), 314-321
- Holder, M.D. & Coleman, B. (2009). The contribution of social relationships to children's happiness. *Journal of Happiness Studies*, 10, (3), 329-349
- Huebner, E. S., Valois, R. F., Paxton, R. J. & Drane, J. W. (2005). Middle school students' perceptions of quality of life. *Journal of Happiness Studies*, 6(1), 15–24.
- James, L.R. & Brett, J. M. (1984). Mediators, moderators, and tests for mediation. *Journal of Applied Psychology*, 69 (2), 307-321

- Jose, P. E., & Ratcliffe, V. (2004). Stressor frequency and perceived intensity as predictors of internalizing symptoms: gender and age differences in adolescence. *New Zealand Journal of Psychology*, 33 (3), 145-154.
- Landis, D., Gaylord-Harden, N. K., Malinowski, S. L., Grant, K. E., Carleton, R. A. & Ford, R.E. (2007). Urban adolescent stress and hopelessness. *Journal of Adolescence* 30(6), 1051-1070.
- Lazarus, R.S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer Publication.
- Levin, K.A., Currie, C. & Muldoon, J. (2009). Mental well-being and subjective health of 11-to 15-year-old boys and girls in Scotland, 1994–2006. *European Journal of Public Health*, 19(6), 605–610.
- Lucas, R.E. & Diener, E. (2009). Personality and subjective well-being. *The science of well-being*, 37, 75-102.
- Lyubomirsky, S., Diener, E. & King, L. (2005). The Benefits of Frequent Positive Affect:

 Does Happiness Lead to Success? *Psychological Bulletin*, 131 (6), 803–855
- Mahon, N. E. & Yarcheski, A. (2002). Alternative theories of happiness in early adolescents. Clinical Nursing Research, 11 (3), 306-323
- Mahon, N.E. Yarcheski, A. & Yarcheski, T.j. (2005). Happiness as related to gender and health in early adolescents. *Clinical Nursing Research*, 14 (2), 175-190
- Masten, A. S., Best, K. M., & Garmezy, N. (1990). Resilience and development:

 Contributions from the study of children who overcome adversity. *Development and Psychopathology*, 2 (4), 425-444.
- Masten, A. S., & Powell, J. L. (2003). A resilience framework for research, policy, and practice. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities*, New York: Cambridge University Press, p. 1–25.
- Mazanov, J. & Byrne, D. G. (2008). Modeling change in adolescent smoking behavior: stability of predictors across analytic models. *British Journal of Health Psychology*, 13, 361-379.

- McClelland, G.H., & Judd, C.M. (1993). Statistical difficulties of detecting interactions and moderator effects. *Psychological Bulletin*, 114 (2), 376-390.
- Moksnes, U.K., Byrne, D. G., Mazanov, J., & Espnes, G.A. (2010a). Adolescent stress: evaluation of the factor structure of adolescent Stress Questionnaire (ASQ-N). *Scandinavian Journal of Psychology*, 51 (3), 203-209
- Moksnes, U.K., Moljord, I.E.O., Espnes, G.A., & Byrne, D.G. (2010b). The association between stress and emotional states in adolescents: The role of gender and self-esteem. *Personality and Individual Differences*, 49 (5), 430-435.
- Moljord, I. E., Moksnes, U.K., Eriksen, L. & Espnes, G.A. (2011). Stress and happiness among adolescents with varying frequency of physical activity. *Perceptual and Motor Skills*, 113(2), 631-646
- Natvig, G.K., Albrektsen, G., & Qvarnstrøm, U. (2003). Associations between psychosocial factors and happiness among school adolescents. *International Journal of Nursing Practice*, 9, 166-175
- Newcomb, M. D. & Harlow, L. L. (1986). Life events and substance use among adolescents: mediating effects of perceived loss of control and meaninglessness in life. *Journal of personality and social psychology*, 51(3), 564-577
- OECD (2012). OECD Better Life Index. OECD *Better Life Index: Norway*, Retrieved 21.01.2013, from http://oecdbetterlifeindex.org/countries/norway/
- Olsson, C. A., Bond, L., Burns, J. M., Vella-Brodrick, D.A. & Sawyer, S. M. (2003).

 Adolescent resilience: a concept analysis. *Journal of Adolescence*, 26 (1), 1–11
- Ozer, E.M., & Irwin, C.E. (2009). Adolescent and young adult health: From basic health status to clinical interventions. In: R.M. Lerner & L. Steinberg (eds.) *Handbook of Adolescent Psychology. Vol. 1. Individual bases of adolescent development.* 3rd ed. USA: John Wiley and Sons, Inc, p. 618-641
- Park, N. (2004). The role of subjective well-being in positive youth development. *The ANNALS of the American Academy of Political and Social Science*, 591(1), 25-39
- Patel V., Flisher A.J., Hetrick S.E. & McGorry P.D (2007). Mental health of young people: a global public-health challenge. *The Lancet*, 369 (9569), 1302–1313.

- Pinquart, M. (2009). Moderating effects of dispisitional resilience on associations between hassles and psychological distress. *Journal of Applied Developmental psychology*, 30 (1), 53-60.
- Piqueras, J. A., Kuhne, W., Vera-Villarroel, P., Van Straten, A. & Cuijpers, P. (2011).

 Happiness and health behaviors in Chilean college students: A cross-sectional survey.

 BMC Public Health, 11, 443.
- Proctor, C., Linley, P., & Maltby, J. (2010). Very happy youths: Benefits of very high life satisfaction among adolescents. *Social Indicators Research*, 98(3), 519–532.
- Ruble, D. N., Martin, C. L. & Berenbaum, S. (2006). Gender development. In Damon, W. & Lerner, R. (eds). *Handbook of child psychology*. 6th ed. New York; Wiley, p. 858-932.
- Rudolph, K.D. (2002). Gender differences in emotional responses to interpersonal stress during adolescence. *Journal of Adolescent Health*, 30, 3-13.
- Ryff, C. D., & Singer, B. (2003). Flourishing under fire: Resilience as a prototype of challenged thriving. In C. L. M. Keyes & J. Haidt (eds.), *Positive psychology and the life well-lived*. Washington, DC: APA, p. 15-36
- Sales, J.M. & Irwin, C. E. Jr. (2009). Theories of adolescent risk taking: the biopsychosocial model. In: DiClemente, R.J., Santelli, J.S. and Crosby, R.A. (eds.) *Adolescent health. Understanding and preventing risk behaviors*. San Fransisc: Jossey-Bass, p. 32-50.
- Santrock, J.W. (2008). Adolescence. 12th ed. New York, USA: McGraw-Hill Companies, Inc.
- Schiffrin, H.H. & Nelson, K.S. (2010). Stressed and happy? Investigating the relationship between happiness and perceived stress. *Journal of happiness studies*, 11, 33-39
- Scoloveno, R.L. (2013). An inverstigation of a theoretical model of resilience in middle adolescents. Doctoral thesis. Rutgers, The State University of New Jersey, Newmark, New Jersey
- Seiffge-Krenke, I. (2000). Causal links between stressful events, coping style, and adolescent symptomatology. *Journal of Adolescence*, 23 (6), 675–91.

- Seiffge-Krenke, I., Aunola, K. & Nurmi, J-E. (2009). Changes in stress perception and coping during adolescence: the role of situational and personal factors. *Child Development*, 80(1); 259-279.
- Seligman, M. E. P. (2008). Positive health. *Applied psychology: an international review*, 15(1), 3-18.
- Sheldon, K. M. & Lyubomirsky, S. (2005). Achieving sustainable new happiness: Prospects, practices and prescriptions. In: Linley, A. & Joseph, S. (eds), Positive psychology in practice. Hoboken, NJ: John Wiley & Sons, p. 127-145
- Siahpush, M., Spittal, M. & Singh, G. (2008). Happiness and life satisfaction prospectively predict self-rated health, physical health, and the presence of limiting, long-term health conditions. *American Journal of Health Promotion*, 23 (1), 18-26
- Skrove, M., Romundstad, P. & Indredavik, M. S. (2013). Resilience, lifestyle and symptoms of anxiety in adolescence: the young –HUNT study. *Social Psychiatry and Psychiatric Epidemiology*, 48(3), 407-416
- Souri, H. & Hasanirad, T. (2011), Relationship between Resilience, Optimism and Psychological Well-Being in Students of Medicine. *Procedia Social and Behavioral Sciences*, 30 (2011) 1541 1544
- Stefanek, E., Strohmeier, D., Fandrem, H. & Spiel, C. (2012). Depressive symptoms in native and immigrant adolescents: the role of critical life events and daily hassles. *Anxiety, Stress & Coping: An International Journal*, 25(2); 201-217.
- Steinberg, L.D. (2008). Adolescence. 8th ed. Boston: McGraw-Hill Higher Education.
- Suldo, S. M., & Huebner, E. S. (2006). Is extremely high life satisfaction during adolescence advantageous? *Social Indicators Research*, 78, 179–203
- Suldo, S.M., Shaunessy, E., & Hardesty, R. (2008). Relationships among stress, coping and mental health in high-achieving high school students. Psychology in the Schools, 45 (4), 273-290.
- Susman, E.J. and Dorn, L.D. (2009) Puberty. Its Role In Development. In: In: Lerner, R.M. and Steinberg L. (eds). *Handbook of Adolescent Psychology. Vol. 1. Individual bases of adolescent development*. 3rd ed. New Jersey: John Wiley & Sons, Inc, p.116-151

- Toussaint, L., & Friedman, P. (2009) Forgiveness, gratitude, and well-being: the mediating role of affect and beliefs. *Journal of Happiness Studies*, 10, 635-654.
- Tusaie, K. & Dyer, J. (2004). Resilience: A historical review of the construct. *Holistic Nursing Practice*, 18(1), 3-8.
- Van de Wetering, E. J., van Exel, N. J. A., & Brouwer, W. B. F. (2010). Piecing the jigsaw puzzle of adolescent happiness. *Journal of Economic Psychology*, 31 (6), 923–935.
- Veenhoven, R. (2008). Healthy happiness: effects of happiness on physical health and the consequences for preventive health. *Journal of happiness studies*. 9 (3). 449-469
- Veenhoven, R. (2010). How universal is happiness? In Diener, E., Helliwell, J.F. & Kahneman, D. (eds). *International differences in well-being*. New York: Oxford university press, p. 328-351
- Von Soest, T., Mossinge, S., Stefansen, K., Hjemdal, O. (2010). A validation study of the Resilience Scale for Adolescents (READ). *Journal of Psychopathology and Behavioural Assessment*, 32, 215–225.
- Wessman, A. E., & Ricks, D. F. (1966). *Mood and personality*. New York: Holt, Rinehart and Winson
- Williams, P.G., Holmbeck, G.N., & Greenley, R.N. (2002). Adolescent health psychology, *Journal of Consulting and Clinical Psychology*, 70 (3), 828-842.
- Yu, X., Lau, J. T., Mak, W. W., Zhang, J., & Lui W. W. (2011). Factor structure and psychometric properties of the Connor-Davidson Resilience Scale among Chinese adolescents. *Comprehensive Psychiatry*, 52 (2), 218-24.
- Zautra, A. J. (2003). *Emotions, stress, and health.* New York: Oxford University Press
- Zautra, A. J., Hall, J. S., & Murray, K. E. (2010). Resilience: A new definition of health for people and communities. In J. W. Reich, A. J. Zautra, & J. S. Hall (eds.), *Handbook of adult resilience*. New York: Guilford Press, p. 3-29

MAIN CONCLUSION

Happiness, daily stress, and resilience play important roles in adolescents' mental health and development. Happiness is an important aspect within every individual's life and remains important to having a good life as a whole. Although most adolescents report positive levels of happiness during adolescence, the experience of happiness seems to decrease during this accumulative developmental period. Stressors are experienced in different intensities and at various frequencies during adolescence due to the challenges and changes that characterize this developmental period. The sum of these stressors may overtax many adolescents' resources and be a potential threat to adolescents' healthy development and well-being. The overall numbers of stress experienced in adolescence seem to increase during this period, and especially girls tend to experience higher levels of stress. Depending on individual and environmental vulnerabilities, the timing, duration, intensity, and frequency of stressors, daily stress may lead to psychological problems such as anxiety and depression and have a pernicious influence on the level of adolescents' happiness. The ability to cope with stress may play an important role in maintaining happiness. In this sense, resilience implies the ability to use protective factors to cope with stressors and contributes to a good outcome despite having experienced situations associated with a higher probability for a negative outcome. Higher levels of resilience may reduce the negative effects of daily stress and influence adolescents' levels of happiness.

The results in this thesis found that adolescents aged from 13 to 18 years in Mid-Norway are moderately happy, which means that they seem to have a relatively good life as a whole. They also showed high levels of resilience and experienced moderate levels of stress in their daily life. Gender differences revealed a higher level of happiness and resilience among boys and a higher level of stress among girls. Age differences revealed higher levels of stress and lower levels of resilience among the older adolescents. No age differences were found in regards to happiness. Higher levels of stress related to conflicts with parents, peers, romantic partners, leisure time, oneself, academic pressure, and the future were associated with decreased happiness. This is an important finding, for it confirms that the sum of daily stressors may be a potential threat to adolescents' well-being. Resilience was found to be a predictor of adolescents' level of happiness, while higher resilience was found to be associated with lower levels of stress. Although resilience may be a potential moderator between stress and health outcomes, the results in this thesis did not find resilience to be a moderator of the relationship between daily stress and happiness.

SPØRRESKJEMA OM UNGDOMS HELSE

Les spørsmålene i tur og orden. Det er ingen «riktige» eller «gale» svar. Riktige svar for deg er det du mener. Finner du spørsmål du ikke kan eller vil besvare, går du videre til neste spørsmål. Prøv likevel å besvare alle spørsmålene. Ikke bruk for lang tid på noen spørsmål.

Takk for at du er villig til å delta i undersøkelsen!

LES

DETTE

FØR DU

STARTER!

Unni Karin Moksnes
PhD-student
Institutt for sosialt arbeid og helsevitenskap



Bruk svart/blå kulepenn eller en god blyant. Ikke bruk tusj!

Krysser du feil, fyller du hele feltet med farge. Sett så kryss i rett felt.

Skriv tydelig, og ikke utenfor feltene. Kryss av slik: X.

Skjemaet skal leses maskinelt. Følg derfor disse reglene:

	 Sett bare ett kryss for hvert spørsmål om ikke annet er oppgitt. 										
A.	BAKGRUNNS	OPP	PLYSNING	BER							19
1.	Kjønn: 2	2. I	Klassetrinr	n:		3.	Hvilket år e	er du f	ødt?		
	Jente 1 Gutt 2		7	9 9	Videre- gående ☐ 11		Skriv årstalle feltet til høyre		19		
В.	OM DEG OG D	IN F	HELSE					Fin/	Bra	Svært	Ut-
1.	Hvordan har he	else	n din vært	det siste år	et?		1	grei nok	/god 3	bra	merket
i lø	du hatt noen av pet av de <u>4 siste</u> kryss <i>på hver linje.</i>			ger			Har ikke hatt det		Litt plaget	Nokså plaget	Svært plaget
2.	Astma eller pip	end	e bryst					Ĺ	Ů		Ů
3.											
4.	Følt deg nervø	s, be	ekymret el	ler redd				\Box	$\overline{\Box}$	\Box	П
5.							10 mm - 10 mm	$\bar{\Box}$	\Box	\Box	$\overline{\Box}$
6.								\Box	$\overline{\Box}$	$\overline{\sqcap}$	П
7.								П	$\overline{\Box}$	$\overline{\Box}$	\Box
8.								\Box	\Box	\Box	\Box
9.								$\overline{\Box}$	\Box	П	\Box
10.								\Box	П	\Box	П
								\Box	$\overline{\Box}$	$\overline{\Box}$	\Box
							1. The state of th	$\overline{\Box}$	$\overline{\Box}$	\Box	\Box
								П	П	$\overline{\Box}$	$\overline{\Box}$

KS-2008-71-4

Lhua	an affa aign du falganda?	11	Paukor	i uka	r 2-4 dager i uka	1 dag i uka ³	Sjeldnere	Aldri 5	
	or ofte gjør du følgende? ⇒ aryss på hver linje.		Røyker Snuser						
	nyse pa nvoi mye.	16.	Drikker alkoh	nol					
C.	OPPLEVELSE AV SAMMENHENG/HE	LHE	T I LIVET						
sva 1 og rute mid	Her er en serie med spørsmål som omhandler ulike sider ved livet vårt. Hvert spørsmål har 7 svaralternativer. Vennligst kryss av for det tallet som best uttrykker det som passer for deg. Tallene 1 og 7 presenterer ytterpunktene. Hvis ordene til venstre for rute 1 er rett for deg, setter du kryss i rute nummer 1. Hvis ordene til høyre for rute 7 er rett for deg, krysser du i rute 7. Hvis du føler noe midt i mellom, setter du kryss i den ruta som passer best for deg. Vennligst sett bare ett kryss for hvert spørsmål.								
1.	Opplever du at du ikke bryr deg om det		7787 926 988 7029	velsene din	e?				
	Veldig sjelden eller aldri ☐ [2 3		Veldig ofte					
2.	Har du opplevd at du er blitt overrasket			til persone	r du trod	de du	kjente go	odt?	
	Det har aldri hendt ☐ [2 3] [Det hender a	ılltid				
3.	Har det hendt at personer du stoler på	har	skuffet deg?						
	Det har aldri hendt ☐ [2 3	4 5 6 7	Det hender a	ılltid				
4.	Inntil nå har livet mitt								
	vært helt uten mål og mening	2 3] [hatt mål og n	nening				
5.	Føler du deg urettferdig behandlet?	0 0	4 5 6 7						
	Veldig ofte	2 3] [Veldig sjelde	n eller aldr	i			
6.	Opplever du ofte at du er i en uvant situ	ıasjo	on og at du er	usikker på	hva du s	skal gj	øre?		
	Veldig ofte	2 3	4 5 6 7	Veldig sjelde	n eller aldr	i			
7.	Er dine dagligdagse aktiviteter en kilde	til	•						
	glede og tilfredsstillelse?	2 3		smerte og kje	edsomhet?	Î			
8.	Har du veldig motstridende tanker og fø	ølels	101 201 2 1221						
	Veldig ofte	2 3		Veldig sjelde	n eller aldr	i			
9.	Skjer det at du har følelser som du hels								
	Veldig ofte ☐ [$\begin{bmatrix} 2 & 3 \\ \end{bmatrix}$		Veldig sjelde	n eller aldr	i			

S 2008 71.4

Husk: Bare ett kryss på hvert spørsmål!
10. Alle mennesker vil kunne føle seg som tapere iblant. Hvor ofte føler du deg slik?
Aldri
11. Hvor ofte opplever du at du over- eller undervurderer betydningen av noe som skjer?
Du over- eller undervurderer det som skjer 1 2 3 4 5 6 7 Du ser saken i rett sammenheng
12. Hvor ofte føler du at de tingene du gjør i hverdagen er meningsløse?
Veldig ofte
13. Hvor ofte har du følelser du ikke er sikker på at du kan kontrollere?
Veldig ofte
D. SPØRSMÅL OM STRESS (ASQ-N)
Her kommer en liste med ting eller situasjoner som du kan oppleve som stressende. Vær snill og fortell oss hvor stressende hver av disse tingene eller situasjonene har vært for deg i løpet av <u>det siste året</u> . Vennligst svar på alle utsagnene/spørsmålene. Sett bare ett kryss i ruten som passer for hvert utsagn

hvert utsagn. NB: Hvis det er noe du ikke har opplevd, krysser du i rute nr. 1 (Ikke stressende).

Hvor stressende er	lkke stressende	Litt stressende	Moderat stressende	Ganske stressende	Svært stressende
1 uenigheter mellom deg og faren din?		🗂	🗂	🗂	5
2 å ikke bli tatt alvorlig?					
3 å stå opp tidlig om morgenen?					
4 å ha lite eller ingen kontroll over ditt eget liv?				97-39/0	
5 å være nødt til å lære ting du ikke forstår?					
6 å ha lærere som forventer for mye av deg?					
7 å ha bekymringer om framtida di?				🔲	
8 å bli ertet?		🔲		🔲	
9 å henge med i skolearbeidet?		🔲		🔲	
10 at arbeidsgiver forventer for mye av deg?				🔲	
11 å måtte ta mer ansvar hjemme etter hvert som oblir eldre?	du П				
12 å ha vanskeligheter med noen skolefag?					
13 å følge regler du er uenig i hjemme?					
14 å måtte konsentrere seg for lenge av gangen i le av skoledagen?	øpet 		🗆		
15 å ikke ha nok skoleutstyr?			🔲	🔲	
16 å måtte lese ting du ikke er interessert i?					
17 å bli oversett eller avvist av en person du er interessert i?			🗆	🗀	
18 uenigheter mellom deg og lærerne dine?			7.5		100000
19 å ikke ha nok tid til å ha det gøy?					

NB: Hvis det er noe du ikke har opplevd, krysser du i rute nr. 1 (Ikke stressende).

Hvor stressende er	Ikke	Litt	Moderat	Ganske	Svært	
	1	2	stressende	4	stressende	
20 å presse deg selv for å nå målene dine?	∐	∐	∐	∐	📙	
21 uenigheter med søsknene dine?					∐	
22 press om å jobbe for å tjene penger?	🔲		🔲		🔲	
23 å ikke ha nok tid til å drive med fritidsaktiviteter?	🔲	🗌	🔲		🔲	
24 å ha for mye hjemmelekser?	🔲		🔲	🔲	🔲	
25 å ikke få nok tilbakemelding på skolearbeidet tidsno	ok					
til at det er hjelp i det?	🔲				🔲	
26 å ikke ha nok tid til aktiviteter utenom skoletid?	🔲		🔲			
27 å få forholdet til kjæresten til å fungere?	🔲		🔲		🔲	
28 å bli nedvurdert av vennene dine?	🗌	🔲	🔲		🔲	
29 uenigheter mellom foreldrene dine?	🔲		🔲			
30 forandringer i fysisk utseende ved å vokse?					🔲	
31 uenigheter hjemme?	🔲	🗌	🔲		🔲	
32 press for å passe inn blant jevnaldrende?					🔲	
33 å ha for mye fravær fra skolen?					🔲	
34 å måtte ta avgjørelser om framtidig arbeid eller						
utdannelse?	🔲	🗌	🔲		🔲	
35 å bo hjemme?	🗌	🔲	🔲		🔲	
36 hvordan du ser ut?			🔲	🔲		
37 uenigheter mellom deg og mora di?	🔲	🔲	🔲			
38 å ikke ha nok penger til å kjøpe de tingene du vil ha						
39 å gå på skolen?						
40 å ikke ha nok tid til kjæresten din?				🗆	🗆	
41 lærere som erter deg?			🗍		🔲	
42 å adlyde regler du er uenig i på skolen?			<u> </u>	□	\Box	
43 press i forhold til skolearbeid?					\Box	
44 mangel på tillit fra voksne som betyr noe for deg?				🗖	\Box	
45 å ikke bli hørt på av lærere?					🗀	
46 foreldre som forventer for mye av deg?						
47 å måtte ta mer økonomisk ansvar etter hvert som di						
blir eldre?					🗆	
48 mangel på forståelse fra foreldre?			—	□	🗖	
49 foreldre som plager deg på grunn av utseendet ditt?			—	<u> </u>	\Box	
50 at arbeid går ut over skole og sosiale aktiviteter?					🗖	
51 å ikke ha nok penger til å kjøpe de tingene du virkel				—		
trenger?					🔲	
52 å ikke komme overens med kjæresten din?					🗆	
53 mangel på frihet?					🗆	
54 jevnaldrende som erter deg for hvordan du ser ut? .					🗍	
55 mangel på respekt fra lærere?				🗖	\Box	
56 uenigheter mellom deg og dine venner?					🗖	
57 å ikke komme overens med lærerne dine?					🗂	
58 å slå opp med kjæresten?						
ου α σια υρρ πισα κισειστετι:	🗀	🗀	ப		Ш	

E. OM FYSISK AKTIVITET OG IDRETT

Ett	kryss på hver linje.		En dag	2-3 dager	4-5 dager	6-7 dags
1.	Hvor mange dager i løpet av en vanlig uke er du	Aldri	i uka ²	i uka ³	i uka	i uka
rae-	så aktiv at du blir <u>andpusten eller svett</u> ?					
2.	Hvor ofte i løpet av de 4 siste ukene deltok du i idrett,					
	sport eller fysisk aktivitet hardt nok til at du <u>pustet fort</u> , svettet eller at <u>hjertet banket fort</u> i 20 minutter?	П	П		П	
		10.000 miles	ш	ш	ш	ш
Hv	or ofte trener du i fritida, utenom skolen?	5-7 dager i uka	2-4 dage i uka	er 1 dag i uka	Sjeldnere	Aldri
3.	Trener eller konkurrerer i idrettslag	¹	2	3	, ₁	5
4.	Trener utenom idrettslag					
	. To hor atonom for ottolog	🗀		ш		
F.	HVORDAN HÅNDTERER DU VANSKELIGE ELLER STRES	SENDE	SITU	ASJONE	ER?	
Nå	r du møter vanskeligheter eller føler deg stresset,					
hvc	or ofte gjør du følgende? Ett kryss på hver linje.		Aldri C	Noe		Vanlig-
			1	Sjelden gang	er Ofte	vis 5
1.	Snakker med moren din om det som plager deg					
2.	Jobber hardt med skolearbeid eller skoleprosjekter					
3.	Snakker med en bror eller søster om hvordan du har det		_		. Ц	Ш
4.	Spiller TV-/dataspill, kort, sjakk el.l.					
5.	Engasjerer deg mer i aktiviteter på skolen					
6.	Sover		. 🗌			
7.	Handler, kjøper ting du liker					
8.	Røyker					
9.	Driver med anstrengende fysisk aktivitet (jogging, sykling, osv	/)				
10.	Blir sint og kjefter på folk					
11.	Sier stygge ting til andre					
12.	Prøver å diskutere med foreldrene dine og snakke ut					
13.	Er sammen med en venn eller venninne					
14.	Går på kino					
15.	Banner					
16.	Prøver å ta egne avgjørelser					
17.	Gir andre skylden for det som skjer					
18.	Avreagerer ved å klage til familiemedlemmer					
19.	Snakker med en venn om hvordan du har det					
20.	Er nær noen du bryr deg om					
21.	Snakker med faren din om det som plager deg					
	Sier hyggelige ting (gir varme hilsener) til andre					
	Ser på tv					
	Drikker øl, vin, sprit					
	Spiser			5 7		
	Prøver å se det positive i en vanskelig situasion				\Box	$\overline{\Box}$

S-2008.71.A

 27. Prøver å finne ut hvordan du skal tak spenningen på egen hånd	dine venr obler danse	mene sine	2000
G. DINE FØLELSER AKKURAT NÅ Til høyre finner du en del utsagn som folk har brukt for å beskrive seg selv. Kryss av for hvert utsagn i den ruten som best beskriver	1. 2. 3.	Jeg føler meg trygg	
hvordan du føler deg akkurat nå, altså, <u>i dette øyeblikket</u> . Det er ingen «riktige» eller «gale» svar. Ikke bruk for lang tid på hvert utsagn, men gi det svaret som	4.5.6.7.	Jeg føler at jeg er under press]]]
best beskriver dine følelser akkurat nå. Ett kryss på hver linje.		Jeg føler meg tilfreds]]
	12. 13. 14.	Jeg er sikker på meg selv	
	16. 17. 18.	Jeg er avslappet	
H. DINE FØLELSER DEN SISTE UKA		Jeg har det bra	
Vennligst les hvert utsagn nøye, og kryss følt deg i løpet av <u>den siste uka, inkludert Ett kryss på hver linje.</u> 1. Jeg har følt meg trist eller ulykkelig 2. Jeg har følt meg på gråten	i dag	Aldri Sjelden ganger Offie alltii	en

5.2008.71.4

	Aldri	Sjelder	Noen ganger	Ofte	Nesten alltid
4.	Jeg har mistet interessen for ting som har vært viktige for meg før	2	3	4	5
5.	Jeg har sluttet å like aktiviteter som jeg likte før				
6.	Jeg har følt meg engstelig, rastløs eller irritabel				
7.	Jeg har mistet troen på meg selv eller undervurderer meg selv				
8.	Jeg har hatt konsentrasjonsvansker				
9.	Jeg har hatt vanskelig for å ta avgjørelser				
10	Jeg har følt det som om jeg har mislykkes				
11	Jeg har følt at ting alltid går galt, uansett hvor hardt jeg prøver				
12	Jeg har hatt søvnforstyrrelser – sovet mer eller mindre enn vanlig, eller hatt avbrudd i søvnen				
13.	Appetitten min har vært unormal – jeg har spist mer eller mindre enn vanlig				
14.	Jeg har følt at det krever større innsats å gjøre ting	\Box	$\overline{\Box}$	П	\Box
	Jeg har følt meg trøtt eller har hatt veldig lite energi				
l. \$	SELVFØLELSE				
Se	tt ett kryss på hver linje for det alternativet som stemmer best for deg.	Sterkt uenig	Uenig	Enig	Sterkt enig
1.	Jeg er stort sett fornøyd med meg selv				
2.	Noen ganger synes jeg at jeg ikke er god for noen ting				
3.	Jeg synes jeg har flere gode kvaliteter/egenskaper				
4.	Jeg er i stand til å gjøre ting like godt som folk flest				
5.	Jeg føler at jeg ikke har mye å være stolt av				
6.	Noen ganger føler jeg meg ubrukelig				
7.	Jeg føler at jeg er en verdifull person, i det minste på samme nivå				
Ω	som andre				
8. o	Jeg skulle ønske jeg hadde mer respekt for meg selv				
9. 10	Alt i alt er jeg tilbøyelig til å føle meg mislykket				
10.	Jeg har en positiv innstilling til meg selv	•Ш	Ш	Ш	Ш
J.	RESSURSER OG MESTRINGSMÅTER				
Ter om	ik hvordan du har hatt det den siste måneden, dvs. hvordan du har tenkt og personer som er viktige for deg. Vennligst kryss av i ruten som er nærmesi	følt o	om deg om pa	selv sser 1	, og for
deg	. Det er ingen riktige eller gale svar.	Litt		Litt	Helt
	enig		Middels ı		uenig
1.	Jeg kommer i mål dersom jeg står på		Ò		Ď
2.	Jeg fungerer best når jeg lager meg klare mål				
3.	Jeg har noen venner/familiemedlemmer som pleier å oppmuntre meg	П	П	П	П
4.	Jeg er fornøyd med livet mitt til nå		\Box	$\overline{\Box}$	\Box
5.	I familien min er vi enige om hva som er viktig i livet				
6.	Jeg får lett andre til å trives sammen med meg				
	_	W	1 1 1	38	

		He en:		Middels	Litt uenig	Helt uenig
11.	Jeg legger alltid en plan fø Vennene mine holder alltid Jeg trives godt i familien n Jeg har lett for å finne nye	å målene mine				
	på dem	å forandre på ting slutter jeg å gruble 				
14.		r/familiemedlemmer som virkelig bryr seg				
16. 17. 18. 19.	Jeg er flink til å snakke me Jeg føler jeg er dyktig I familien min har vi regler Jeg har alltid noen som ka	m det meste				
22. 23. 24. 25. 26. 27. 28.	Familien min ser positivt p veldig leit					
Hvc ulyk i løp siste	r lykkelig/glad eller kelig har du vært bet av den e uken? s av i bare én av boksene.	Ekstremt lykkelig (Følelse av begeistring) Veldig lykkelig (Føler meg virkelig bra og op Ganske lykkelig (Føler meg bra) Nokså lykkelig (Føler meg rimelig bra og m Litt lykkelig (Akkurat litt mere enn nøytral) Nøytral/midt i mellom Litt ulykkelig (Akkurat litt mere enn nøytral) Nokså ulykkelig (Føler meg litt «nedfor») Ganske ulykkelig (Føler meg ganske deprir Veldig ulykkelig (Føler meg veldig deprimer Ekstremt ulykkelig (Totalt deprimert og «ne	npstemt unter) nert)	·)		- 9 - 8 - 7 - 6 - 5 - 4 - 3 - 2 - 1
					d)

Til slutt: Dobbeltsjekk at du har husket å fylle ut alle spørsmålene og at du ikke har hoppet over noen av sidene.

Takk for at du ville svare på spørsmålene!



REGIONALE KOMITEER FOR MEDISINSK OG HELSEFAGLIG FORSKNINGSETIKK

 Region:
 Saksbehandler:
 Telefon:
 Vår dato:
 Vår referanse:

 REK midt
 Siv Tone Natland
 73598916
 04.10.2012
 2012/1764/REK midt

Deres dato: 27.09.2012

Vår referanse må oppgis ved alle henvendelser

Unni Karin Moksnes Institutt for sosialt arbeid og helsevitenskap

2012/1764 Barn og ungdoms hverdagsliv, helse og trivsel

Forskningsansvarlig: NTNU, v/Geir Arild Espnes

Prosjektleder: Unni Karin Moksnes

Vi viser til søknad om prosjektendring datert 27.09.2012 for ovennevnte forskningsprosjekt. Søknaden er behandlet av leder for REK midt på fullmakt, med hjemmel i helseforskningsloven § 11.

Vurdering

Det søkes om 1) forlengelse av prosjektperioden til 06.12.2014, og 2)nye analyser av allerede innsamlede prosjektdata. Komiteen finner at samtykket som ble gitt i hovedstudien er dekkende for de nye analysene. Komiteen har ingen innvendinger mot endringene.

Vedtak

Komiteen godkjenner søknaden om prosjektendring.

Klageadgang

Du kan klage på komiteens vedtak, jf. forvaltningslovens § 28 flg. Klagen sendes til REK midt. Klagefristen er tre uker fra du mottar dette brevet. Dersom vedtaket opprettholdes av REK midt, sendes klagen videre til Den nasjonale forskningsetiske komité for medisin og helsefag for endelig vurdering.

Med vennlig hilsen

Sven Erik Gisvold Professor, dr. med. Leder REK midt

> Siv Tone Natland Rådgiver

Kopi til: geirae@svt.ntnu.no

APPENDIX C: Invitation

INVITASJON TIL Å DELTA I EN UNDERSØKELSE OM BARN OG UNGES HELSE

Til elever/foresatte

Du/ditt barn inviteres til å delta i en spørreundersøkelse høsten 2008 der hovedhensikten er å undersøke hvor godt et australsk-utviklet spørreskjema som omhandler stress i barn og unges hverdagsliv fungerer blant norske ungdommer. Undersøkelsen inkluderer også spørsmål om helse, motstandsressurser og mestring. Spørsmålene besvares ved at man fyller ut et spørreskjema.

Vi ønsker svar på spørsmålene fra elever i 8.- 10. klasse i ungdomsskolen og elever fra videregående skole. Å fylle ut skjemaet vil ikke ta mer enn en skoletime, og gjennomføringen vil skje i samarbeid med skolens ansatte. Besvarelsene i undersøkelsen er helt anonyme og vil bli behandlet konfidensielt. Svarene vil bli presenter slik at ingen enkeltpersoner kan gjenkjennes.

Det er frivillig å delta i undersøkelsen, og det innhentes passivt samtykke fra deltakerne. Det betyr at dersom du selv som elev, eller dine foreldre ikke ønsker at du deltar i undersøkelsen, gir du muntlig tilbakemelding til undersøkelsens kontaktperson på skolen. Å fylle ut skjemaet er et samtykke i seg selv, og det skal være anonymt. Merk at dette også betyr at når du har besvart og levert fra deg spørreskjemaet, er det ikke mulig å reservere seg. Ønske om ikke å delta vil ikke ha noen konsekvenser. Det er viktig at ingen elever eller foresatte føler seg presset til å samtykke. Spørreskjemaet vil bli sendt til skolen på forhånd slik at elever og foresatte har mulighet til å vurdere om man ønsker å delta eller ikke.

Studien er godkjent av Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste AS og Regional etisk komité for medisinsk og helsefaglig forskningsetikk, Midt-Norge (REK).

Kontaktperson for undersøkelsen ved NTNU er PhD-student Unni Karin Moksnes. Vi håper at de som lurer på noe tar kontakt enten på e-post: unni.moksnes@svt.ntnu.no eller på telefon 971 14 742 eller 73 59 19 28

Vennlig hilsen

Unni Karin Moksnes
PhD-student
Institutt for sosialt arbeid og helsevitenskap
Norges teknisk-naturvitenskapelige universitet

