Regine Strand, NTNU Health Science

# Stress, Self-Efficacy and Mental Health in Adolescence

Article I Investigation of the Association Between Stress, Self-Efficacy and Mental Health in Adolescence

Article II The Role of Stress and Self-Efficacy in Association with Mental Health in Adolescence

Master's thesis in Health Science

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Norwegian University of Science and Technology
Faculty of Medicine and Health Sciences
Department of Public Health and Nursing

NTNU
Norwegian University of Science and Technology

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The inspiration for this thesis came from my background in studying psychology and nursing, and my general interest in mental health and how it impacts our lives and communities. A lecture about health promotion by *Anders Smith* from *Helsedirektoratet* during my bachelor's degree in nursing was the inspiration for me starting my master's in health science. The lecture ignited a spark in me to learn more about what affects and promotes both physical and mental health. I liked the idea of focusing on resources that promote health and well-being, not only dangers and risks factors that may compromise our health. During my master's degree, it has been emphasized that it is important to strengthen personal resources and promote health from an early age. Childhood and adolescence create the foundation for the rest of our lives, and it is important that we make it as good as possible for everyone. Further, as health is made in everyday life, I think it is important to promote what gives our lives quality and meaning. My interests were the reason for reaching out to professor *Geir Arild Espnes*, my main supervisor, to talk about possible projects for my master's thesis.

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Regine Strand

## Summary

This master's thesis investigated the theoretical and empirical background on stress, self-efficacy and mental health in adolescence, and a quantitative investigation of the role of stress and self-efficacy in association with mental health outcomes in adolescence was conducted. The thesis contains a description of the adolescent period and mental health, as well as conceptualizations and definitions of stress and self-efficacy. Further, it contains a review of the empirical findings regarding the relationship between the constructs. Empirical evidence suggests that there are relationships between stress, self-efficacy and mental health, and that they influence one another.

Results from the quantitative analyses showed significant sex differences. Girls reported higher levels of stress and lower levels of general self-efficacy than boys, and lower levels of mental well-being and higher levels of symptoms of depression than boys. A significant positive association was found between self-efficacy and mental well-being, and between stress and symptoms of depression. A significant negative association was found between self-efficacy and symptoms of depression, and between stress and mental well-being. Self-efficacy was especially important to explaining the variance in mental well-being, whereas stress was especially important to explaining the variance in symptoms of depression.

## Norsk sammendrag

Denne mastergradsoppgaven undersøkte den teoretiske og empiriske litteraturen om stress, mestringstro og psykisk helse i ungdomstiden, og en kvantitativ undersøkelse av betydningen av stress og mestringstro i forhold til psykisk helse i ungdomstiden ble utført. Oppgaven inneholder en beskrivelse av ungdomstid og psykisk helse, og konseptualiseringer og definisjoner av stress og mestringstro, i tillegg til en gjennomgang av empiriske funn på forholdet mellom konstruktene. Empiriske funn antyder at det er assosiasjoner mellom stress, mestringstro og psykisk helse, og at de påvirker hverandre.

Resultatene av de kvantitative analysene viste signifikante kjønnsforskjeller. Jenter rapporterte høyere nivåer av stress og lavere nivåer av mestringstro enn gutter, og lavere nivåer av psykisk velvære og høyere nivåer av symptomer på depresjon enn gutter. Det ble funnet en signifikant, positiv assosiasjon mellom mestringstro og psykisk velvære og mellom stress og symptomer på depresjon. Det ble funnet en signifikant, negativ assosiasjon mellom mestringstro og symptomer på depresjon og mellom stress og psykisk velvære. Mestringstro forklarte mest av variansen i psykisk velvære, mens stress forklarte mest av variansen i symptomer på depresjon.

## Table of Contents

## Main Introduction

This master's thesis is divided into two connected, scientific articles. The overall aim of the thesis was to investigate the relationships between stress, self-efficacy and mental health in adolescence. Adolescence is a developmental period with numerous challenges, as well as possibilities for growth and positive development. It is a period with increasing demands, expectations and potential stressors, and mental health problems such as depression and anxiety may emerge. Coping resources, such as self-efficacy, can help adolescents manage the challenges they are faced with and strengthen their mental health and well-being.

Article I is a theoretical article that creates the theoretical and empirical basis for the second article. The overall aim of the article was to investigate the theoretical framework on stress, self-efficacy and mental health in adolescence, as well as to investigate the empirical basis for the relationship between stress, self-efficacy and mental health in adolescence. The method used in Article I was a search of literature. The databases mainly used were Scopus and Web of Science, in addition to the "snowball method" to detect similar articles. The search words mainly used were "adolescence", "mental health", "self-efficacy" and "stress". The article contains a description of the adolescent period and mental health, as well as conceptualizations and definitions of stress and self-efficacy. Further, it contains a review of the empirical findings regarding the relationship between the constructs. This is discussed in relation to the theoretical framework to establish an understanding of the constructs and the relationship between them.

Article II is an empirical article that contains a summary of the content in Article I, in addition to statistical analyses based on the cross-sectional survey, *"Oppvekst i bygder"*, with Norwegian adolescents aged 13 to 19. The overall aim of the article was to investigate sex differences in association with stress, self-efficacy and mental health (mental well-being and

symptoms of depression), and the roles of stress and self-efficacy in association with mental health, controlled for sex, age and socioeconomic status. The method used for Article II was statistical analyses using SPSS, version 25. The survey, participants, procedures and measurements are thoroughly described. The results contain descriptive analyses, correlation analysis, and a linear multiple regression analysis for all the study variables. This provides an updated empirical link between self-efficacy, stress and mental health among Norwegian adolescents, in addition to sex, age and socioeconomic differences.

Both articles were written and referenced using the style guidelines in the Publication Manual of the American Psychological Association (APA, 6th Edition), and written for a possible submission to the *Journal of Adolescence*.

# Article I

# Investigation of the Association Between Stress, Self-Efficacy and Mental Health in Adolescence

Regine Strand
Department of Public Health and Nursing
Norwegian University of Science and Technology, Trondheim

Author Note

Regine Strand, Department of Public Health and Nursing, Norwegian University of Science and Technology, NTNU.

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Correspondence concerning this article should be addressed to Regine Strand, Department of Public Health and Nursing, Norwegian University of Science and Technology, 7491 Trondheim, Norway. E-mail: regins@stud.ntnu.no

## Abstract

This article investigated the theoretical and empirical background on stress, self-efficacy and mental health in adolescence, and the relationships between stress, self-efficacy and mental health. A search of literature was conducted to collect data for the study. Adolescence is an important developmental phase with challenges and opportunities for growth and positive development. Mental health problems may emerge during this time, and stress is suggested to be important in understanding adolescent health. Stress may be a risk factor for developing mental health problems such as depression and anxiety, and coping resources such as self-efficacy can help moderate the possible harmful effects of stress. Self-efficacy is an important resource for a positive youth development, and for positive mental health and well-being.

*Keywords:* adolescence, depression, mental health, mental well-being, self-efficacy, stress

Adolescence is an important transitional phase in the life course that presents many challenges and opportunities (Bandura, 2005). The period has often been characterized as a time of psychosocial turmoil and discontinuity, where adolescents must manage major biological, psychological, cognitive, educational and social role transitions, and must adapt to emerging adult roles and responsibilities (Bandura, 2005). In Western cultures in the past century, adolescence has been perceived as a problematic period of the human life span (Santrock, 2008). Today's perspectives, such as the positive youth development perspective, recognize the wide variability that characterizes development during this period (Santrock, 2008) and the opportunities for growth and positive development (Larson, 2000). Most adolescents are not as disturbed and troubled as popular stereotypes suggests (Santrock, 2008). A survey among Norwegian adolescents aged 13 to 19, *Ungdata 2017*, found that most Norwegian adolescents are content, have good relationships with friends and family, are physically active, and have a positive outlook on the future (Bakken, 2017). Similar findings were conducted by Folkehelseinstituttet (FHI, 2018). However, findings suggest that mental health problems are increasing, especially among girls (Bakken, 2017; FHI, 2018).

According to the World Health Organization (WHO, 2017), mental health problems may emerge during late childhood and early adolescence. Approximately 10 to 20 percent of children and adolescents worldwide experience mental health problems which is the leading cause of the burden of disease among young people, with depression as the most common problem (WHO, 2017). Poor mental health can affect the wider health and development of adolescents and is associated with health risk behaviours such as alcohol, tobacco and illicit substance use, school dropout and delinquent behaviours (WHO, 2017). According to Meilstrup et al. (2016) mental health problems in adolescence can have implications for school attendance, academic achievements and social relations. Further, mental health

problems in adolescence may also track into adulthood and have serious consequences for mental well-being and quality of life (Meilstrup et al., 2016). In a longitudinal study, Fergusson and Woodward (2002) found that adolescents with depression are at increased risk of depression in adulthood, health risk behaviour, early parenthood and at increased likelihood of dropping out of education and work life. These outcomes were similar for both sexes (Fergusson & Woodward, 2002).

In Norway, 15 to 20 percent of children and adolescents experience mental health problems, and about eight percent fulfil the diagnostic criteria of a mental disorder (Helse- og omsorgsdepartementet, 2017). Despite most Norwegian adolescents being content, having good relationships with friends and family, being physically active, and having a positive outlook on the future, there has been an increase in health problems such as symptoms of stress and thoughts of distress and worry, especially among girls (Bakken, 2017). These problems tend to increase during lower secondary school and decrease when students reach upper secondary school (Bakken, 2017). According to FHI (2018), an increasing number of girls report higher levels of mental health problems and seek help for their problems. There has been a small decrease in mental health problems among boys since 2010 (Bakken, 2017). These results may indicate that girls have poorer mental health than boys.

Exposure to stressful events (stressors) represents significant sources of risk in adolescents' development, and stressors are experienced in different intensities and durations throughout adolescence (Compas & Reeslund, 2009). According to Sarafino (1998) stress is "the condition that results when person and environment transactions lead the individual to perceive a discrepancy, whether real or not, between the demands of a situation and the resources of the persons biological, psychological, or social systems" (Sarafino, 1998, p. 70). The experience of stress in adolescence is suggested to be important in understanding adolescent health, and some evidence suggests that stress in adolescence is related to the

occurrence of psychiatric symptomatology such as aggression, depression, anxiety, suicidal ideation and actual risk of suicide (Mc Kay, Dempster & Byrne, 2014). Self-efficacy can be an important coping resource when faced with everyday stressors or challenges and is defined as "an individual's belief in one's abilities to organize and execute the course of action required to produce given outcomes" (Bandura, 1997, p. 3). Self-efficacy can act as a moderator of stress and have a protective function in individuals' responses to stress (Mc Kay et al., 2014). Adolescence, mental health, stress and self-efficacy will be further elaborated in the presentation of the theoretical and empirical framework.

## Aims

Norwegian as well as global health policies are focusing on promoting mental health and preventing mental health problems among adolescents (Helse- og omsorgsdepartementet, 2017; WHO, 2017). Thus, it is important to have knowledge about risk factors for mental health problems and, maybe more importantly, about resources for promoting mental health and well-being in adolescence. The knowledge will be fruitful to the public health, in the contexts where adolescents spend their time, such as school and leisure time activities, and for future mental health, education and work life. The aims of this article were 1) to investigate the theoretical background on stress, self-efficacy and mental health in adolescence based on earlier literature and research, and 2) to investigate the empirical basis for the relationships between stress, self-efficacy and mental health in adolescence.

## Search of Literature

To produce an overview of empirical research on stress, self-efficacy and mental health in adolescence, a search of literature was conducted. The systematic searches of

Table 1

*Search of Literature*

| Database | Search Words | Limitations | Document results | Abstracts read | Selected articles |
|---|---|---|---|---|---|
| Scopus | [1]Self-Efficacy AND [2]Stress AND [3]Adolescent* AND [4]School | [1,2,3] Article title, [4] Article title, Abstract, Keywords | 2 (Sort on Cited by highest) | 2 | 1 |
| Scopus | [1]Self-Efficacy AND [2]Stress AND [3]Adolescent* AND [4]School | [1] Article title, [2,3,4] Article title, Abstract, Keywords | 25 (Sort on Cited by highest) | 7 | 3 |
| Scopus | [1]Self-Efficacy AND [2]Youth OR [3]Adolescent* AND [4]Mental Health | [1,2,3,4] Article title, abstract, keywords Subject area: Social Sciences | 120 (Sort on Cited by highest) | 15 | 4 |
| Web of Science | [1]Self-Efficacy AND [2]Stress AND [3]Youth OR [4]Adolescence AND [5]Mental health AND [6]School | [1,2,3,4,5] Title, [6] Topic | 6 (Sort by Times Cited – highest to lowest) | 6 | 2 |
| Web of Science | [1]Self-Efficacy AND [2]Stress AND [3]Youth OR [4]Adolescence AND [5]Positive mental health OR [6]Negative mental health | [1,2,3,4,5,6] Title | 19 (Sort by Times Cited – highest to lowest) | 8 | 3 |
| PsychInfo | Self-Efficacy AND Stress AND Adolescents | None | 48 | 10 | 5 |

literature are presented in Table 1. The literature was mainly obtained from the databases Scopus and Web of Science. Additionally, articles were found using citations and lists of references of the scientific articles. A search in Scopus using only the search word “stress” generates over 2 million document results, which indicates that this is an enormous research field. To narrow the document results, more search words and different combinations were used, in addition to different combinations of limitations. Search words used were mainly “adolescence”, “mental health”, “self-efficacy” and “stress”. The main information sources were scientific articles and reports in English. There is a probability that not all evidence was located, and some data might therefore be missing from this study. However, to discover all available evidence would have been an enormous task and a limited scope of evidence was necessary. Further, it is possible that other variables not included in this study can have an impact on adolescent’s mental health.

## Theoretical and Empirical Background

### Adolescence

Adolescence is defined as “the period between childhood and adulthood that involves biological, cognitive, social and emotional changes” (Santrock, 2008, p. 16). It is the preparation for adulthood. The age range of adolescence vary with cultural and historical circumstances, but in most cultures today, adolescence begins at 10 to 13 years of age and ends between 18 and 22 years of age (Santrock, 2008). However, change does not end with adolescence. Development is a lifelong process, but developmental aspects that take place in adolescence relates to development and experiences in both childhood and adulthood (Santrock, 2008). In Western cultures in the past century, adolescence has been perceived as a problematic period of the human life span (Santrock, 2008). The scientific study of

adolescence generally dates back to 1904 and G. Stanley Hall's storm and stress-view. According to Hall's view, children between the ages 9 to 12 are well adjusted, but this harmony is broken up in adolescence. According to Hall (1904), storm and stress is seen in most adolescents and refer to decreased self-control (storm) as well as an increased sensitivity to internal and external stimuli (stress). Storm and stress can affect adolescent behaviour in three ways: conflict with parents, mood disruptions and risky behaviour (Hall, 1904).

In later years, the description of adolescence as a period of storm and stress has received little support (Bandura, 1964). Most adolescents do not consider their adolescence as particularly stormy. Mass media often present adolescence as stormy which create a skewed view of child development and expecting adolescence to be stormy often becomes a self-fulfilling prophecy (Bandura, 1964). Today's perspectives focus on the positive aspects of adolescence, with greater emphasis on possibilities for personal growth and development, and positive individual traits (Larson, 2000; Santrock, 2008).

**Positive youth development.** According to Larson (2000), earlier developmental psychology and previous studies on adolescence have focused on risks and problem behaviours, while fewer have focused on positive youth development and how adolescents become motivated, directed, socially competent and content. Development is, after all, a process of growth and increasing competence (Larson, 2000). The positive youth development perspective focuses on supporting and promoting children and adolescents' social, emotional, behavioural and cognitive development. According to this perspective, a healthy development holds the key to both health promotion and prevention of problem behaviours (Catalano, Berglund, Ryan, Lonczak & Hawkins, 2004). In a review of positive youth development programmes in the United States, Catalano et al. (2004) found that among the themes common to success, building self-efficacy was one of the key contributors, in

addition to strengthening social, emotional, behavioural, cognitive and moral competencies, increase healthy bonding with adults, peers and younger children, and expand opportunities and recognition for adolescents (Catalano et al., 2004).

## Mental Health in Adolescence

According to the WHO, positive mental health is defined as "a state of well-being in which every individual realizes his or her potential, can cope with the normal stressors of life, can work productively and fruitfully, and is able to make a contribution to his or her community (WHO, 2014, para. 1). Mutually satisfying and enduring relationships are other important aspects of positive mental health (WHO, 2001). Further, the positive dimension of mental health is stressed in WHO's definition of health, as health is defined as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 2014, para. 2). According to Heizomi, Allahverdipour, Jafarabadi and Safaian (2015), a healthy mental status greatly affects the lives of individuals and communities due to a higher quality of life, better physical health, social integration and overall well-being. Poor mental health may have negative effects on physical health as well as subjective well-being. Lack of mental well-being could lead to the development of a mental disorder and the loss of functional ability (Heizomi et al., 2015).

Mental well-being is a complex construct (Tennant et al., 2007). Within the field of positive psychology, two perspectives covering both affect and psychological functioning are often referred to – the hedonic perspective, which focuses on the subjective experience of happiness and life satisfaction, and the eudemonic perspective, focusing on psychological functioning and self-realization (Tennant et al., 2007). Generally, measurement of mental well-being includes evaluation of self-esteem, life satisfaction, happiness, optimism, mastery

and feeling in control, having a purpose in life, and a sense of belonging and support (Gestsdottir et al., 2015).

Depression is the most common mental health problem among adolescents (WHO, 2017), and is a serious medical illness that negatively affects how individuals feel, think and act (Parekh, 2017). Depression can decrease an individual's ability to function at school, work and at home. Symptoms of depression can vary from mild to severe and can include feeling sad, loss of interest or pleasure in activities once enjoyed, difficulty concentrating or making decisions, and thoughts of death or suicide (Parekh, 2017). Risk factors for depression include biochemistry, genetics, personality and environmental factors (Parekh, 2017). Measurements of depression typically include commonly experienced depressive symptoms (Byrne, Davenport & Mazanov, 2007) as previously described.

Previous studies have found that mental health problems are more prevalent among girls than boys (Cicognani, 2011; Bakken, 2017; FHI, 2018; Gestsdottir et al., 2015; Nolen-Hoeksema, 2001). According to Gestsdottir et al. (2015) girls' psychological distress increase much more than boys' during adolescence. Girls are twice as likely as boys to experience depression, whether depression is indexed as a diagnosed mental disorder or as subclinical symptoms. By the age of 13, girls' rates of depression begin to increase, whereas boys' rates of depression remain low or may even decrease (Gestsdottir et al., 2015). Sex differences are also commonly found in psychological well-being, with females reporting lower levels of mental well-being (Nolen-Hoeksema, 2001). In support of this, Cicognani (2011) found that male adolescents had higher well-being scores than did adolescent females.

Regarding mental health and socioeconomic status (SES; e.g. measured by household income, parental educational level and/or parental occupational status) in adolescence, studies have found that mental health problems are more prevalent in lower socioeconomic groups (Huppert & Whittington, 2003; Meilstrup et al., 2016; Reiss, 2013). Reiss (2013) found that

children and adolescents that were socioeconomically disadvantaged were at higher risk of developing mental health problems compared to children and adolescents from more affluent families. Meilstrup et al. (2016) found that significantly more of children from families with low SES experience daily emotional symptoms compared to children from families with high SES. Similar findings were conducted by Huppert and Whittington (2003), who found that differences between levels in mental health were associated with demographic, health related and social factors (Huppert & Whittington, 2003). On the other hand, Moeini et al. (2008) found no significant relationships between perceived stress, general self-efficacy and psychological well-being based on parents' educational status. The associations between perceived stress, self-efficacy and psychological well-being in this study were not mediated by differences in demographic characteristics (Moeini et al., 2008).

## The Experience of Stress in Adolescence

Stress is experienced in the ordinary events of daily life, major life events, and chronic stressful conditions (Lazarus & Folkman, 1984). According to Sarafino (1998) stress is "the condition that results when person and environment transactions lead the individual to perceive a discrepancy, whether real or not, between the demands of a situation and the resources of the persons biological, psychological, or social systems" (Sarafino, 1998, p. 70). The definition emphasizes the relationship between the person and the environment, which considers characteristics of the person on one hand, and the nature of the environmental event on the other (Sarafino, 1998). Stressful stimuli (stressors) are thought of as personal or environmental events that causes individuals to feel threatened. Thus, stress is emotional disturbances or changes caused by stressors (Lazarus & Folkman, 1984; Lazarus, 1990). According to Folkman (2013), people experience different emotions during stressful events, both positive and negative. Stressful events that are perceived as threatening are often

accompanied by fear, anxiety and worry, while stressful events that are perceived as challenging are often accompanied by eagerness and excitement (Folkman, 2013).

According to Mc Kay et al. (2014) the experience of stress in adolescence is important in understanding adolescent health. Some evidence suggests that the experience of adolescent stress is related to the occurrence of psychiatric symptomatology, sometimes of clinical significance, such as aggression, depression, anxiety, suicidal ideation and actual risk of suicide (Mc Kay et al., 2014). Sources of stress in adolescence include normative stressors (e.g. developmental challenges inherent to adolescence, such as puberty, school transitions, increased academic demands), non-normative stressful life events (e.g. divorce, deaths), and daily hassles (e.g. chronic stressors such as parent-child conflict and academic pressure; Suldo, Shaunessy & Hardesty, 2008). Daily hassles, compared to traumatic events, are increasingly recognized as important risk factors for mental health problems (Schönfeld, Brailovskaia, Bieda, Zhang & Margraf, 2015). But while stress is recognized as an important risk factor, not all people who experience stress experience impaired mental health. The effects of daily stressors are important predictors for the emergence of symptoms of depression and anxiety. The strength of the association between stress and mental state depends on individual and contextual resources and vulnerabilities or risks (Scönfeld et al., 2015).

Exposure to stressors represents significant sources of risk in adolescents' development, and stressors are experienced in different intensities and durations throughout adolescence (Compas & Reeslund, 2009). Stress is an inevitable aspect of the human condition, and coping makes the big difference in adaptational outcome with further impact on health (Suldo et al., 2008). The coping behaviours that adolescents engage in to deal with stress may help explain why certain adolescents experiencing stressors manage to adapt effectively and cope successfully (Suldo et al., 2008). Lazarus and Eriksen (1952) found that

some individuals do much better under stress while others do much worse (in Lazarus & Folkman, 1984, p. 7). Efficacy expectancies affect the extent to which a person feels threatened: perceived inefficacy is accompanied by high fear arousal, whereas fear arousal declines with higher perceived efficacy beliefs (Lazarus & Folkman, 1984).

Previous studies have found sex differences in perceived stress (Bancila & Mittelmark, 2005; Mc Kay et al., 2014). According to Mc Kay et al. (2014) girls report higher levels of stress than boys, especially when it comes to interpersonal stressors such as peers, romantic partners and family relationships. There were significant sex differences on seven out of ten stress domains, and in all cases, females reported significantly higher stress than males (Mc Kay et al., 2014). Similar findings were conducted by Bancila and Mittelmark (2005), who found clear sex differences in levels of stress, coping and distress. Further, interpersonal stress and worries about daily living was directly associated with depressed mood among girls. For boys, an effect of interpersonal stress on depressed mood was mediated by self-efficacy and social support (Bancila & Mittelmark, 2005).

## Conceptualization of Self-Efficacy

Self-efficacy is a term that stems from the American psychologist Albert Bandura and social cognitive theory and is defined as "an individual's beliefs in one's abilities to organize and execute the course of action required to produce given outcomes" (Bandura, 1997, p. 3). Since the 1970's, the social cognitive theory of Bandura has been one of the most important theories used to understand human behaviour and motivational determinants of such behaviour (Tsang, Hui & Law, 2012). The theory argues that individuals' behaviour is under influence of environmental and personal cognitions and according to Bandura, self-efficacy is the most important factor affecting an individual's cognition (Tsang et al., 2012). Self-

efficacy is not concerned with the number of skills a person has, but the individual's beliefs about own coping resources and abilities in different situations and circumstances (Bandura, 1997). The individual's level of motivation, affective states and actions depend on what they believe rather than on what is objectively true (Bandura, 1997). High perceived self-efficacy reflects an optimistic self-belief, is a positive resistance resource factor and related to behaviour and is therefore relevant to clinical practice and behavioural change (Schwarzer & Jerusalem, 1995).

Efficacy belief is a major determinant of action and according to Bandura (1997), individuals guide their lives by their beliefs of personal efficacy. Such beliefs influence the courses of action they choose to pursue, how much effort they put forth in their endeavours, how long they will persevere in the face of obstacles and failures, their resilience to adversity, whether their thought patterns are self-hindering or self-aiding, how much stress and depression they experience in coping with environmental demands, and the level of accomplishments they realize (Bandura, 1997). Individuals act when they hold efficacy beliefs and outcome expectations that make the effort seem worthwhile and avoid pursuits that they believe they cannot perform successfully and that they anticipate will invite trouble for them (Bandura, 1997). Self-efficacy beliefs not only help determine task performance, but also coping (how people tackle challenges arising from trying to complete the task, the degree of anxiety and frustration they experience in the process; Tsang et al., 2012). Apart from a general perception of self-efficacy, there can be very specific beliefs in self-efficacy regarding different domains of oneself (e.g. physical strength in soccer, or the stamina to prepare for a difficult test). Self-efficacy beliefs vary in strength across different domains (Tsang et al., 2012).

Studies regarding sex differences in self-efficacy are contradictory, and dependent on the ways in which self-efficacy is measured: general or domain specific self-efficacy. In a

study on Italian adolescents, Cicognani (2011) found that male adolescents scored higher on general self-efficacy than did female adolescents. When dividing self-efficacy into domains such as emotional, social and academic self-efficacy, Mc Kay et al. (2014) found that boys scored significantly higher on social self-efficacy, females scored significantly higher on academic self-efficacy, while there were no sex differences for emotional self-efficacy. Similar findings were conducted by Bacchini and Magliulo (2003), who found that girls show a higher perception of efficacy in academic tasks.

Regarding self-efficacy and socioeconomic status (SES), studies have found socioeconomic differences. A study by Mazur, Malkowska-Szkutnik and Tabak (2014) found that high self-efficacy was more prevalent in higher than lower socioeconomic groups. Similarly, Meilstrup et al. (2016) found socioeconomic differences in self-efficacy, where schoolchildren from low SES had higher odds for low self-efficacy than children from high SES. Further, schoolchildren with low and medium self-efficacy had increased odds for emotional symptoms compared to children with high self-efficacy (Meilstrup et al., 2016).

## The Association Between Stress, Self-Efficacy and Mental Health

In the following section, empirical findings on the association between stress, self-efficacy and mental health will be presented. The empirical findings are the result of the search of literature that was conducted.

**Stress and mental health.** According to Galaif, Sussman, Chou and Wills (2003), stress, coping behaviours and negative mental health reciprocally influence each other. Several studies have found relationships between stress and mental health problems such as anxiety and depression (Ghofranipour, Saffari, Mahmoudi & Montazeri, 2013; Heizomi et al., 2015; Schönfeld et al., 2015; Suldo et al., 2008). Ghofranipour et al. (2013) found a significant positive relationship between depression and perceived stress. According to

Schönfeld et al. (2015) there is a relationship between daily stressors and depression and anxiety, where perceived stress is both a predictor and an outcome of depression. Different coping strategies may exacerbate or decrease perceived stress, and this may place some adolescents at increased risk for experiencing mental health problems (Schmeelk-Cone & Zimmerman, 2003). Heizomi et al. (2015) found that students with higher levels of perceived stress were generally less happy than those with a lower level of perceived stress. Suldo et al. (2008) found that perceived stress was positively correlated with psychopathology and negatively correlated with positive indicators for mental health such as academic self-efficacy and life satisfaction among adolescents participating in an international baccalaureate programme. However, stress was not necessarily linked with diminished academic and social functioning. The ways in which students cope with stress was key to mental health (Suldo et al., 2008). Emotion-focused coping strategies may serve to increase perceived stress and may place adolescents at increased risk of mental health problems, whereas problem-focused coping may serve to buffer the impact stress has on positive indicators of mental health (Suldo et al., 2008).

**Stress and self-efficacy.** Several studies have found a significant negative relationship between stress and self-efficacy (Ghofranipour et al., 2013; Lovenjak & Peklaj, 2016; Mc Kay et al., 2014; Moeini et al., 2008). According to Mc Kay et al. (2014) individuals' beliefs about their control over outcomes and their self-efficacy play an important role in stress levels and outcomes. Self-efficacy had a significant negative relationship with stress levels, a high sense of self-efficacy acted as a moderator of stress and had a protective function in individuals' responses to stress (Mc Kay et al., 2014). In a study on a group of Iranian male adolescents, Moeini et al. (2008) found significant relationships between perceived stress, psychological distress and outcome of general self-efficacy. Perceived stress increased as self-efficacy scores decreased. Further, there was a significant relationship

between students with lower self-efficacy, lower mental well-being and higher levels of perceived stress. Perceived stress and self-efficacy determined psychological well-being (Moeini et al., 2008). In a study on Iranian male adolescents, Ghofranipour et al. (2013) found a significant negative relationship between perceived stress and self-efficacy. Similar findings were conducted by Lovenjak and Peklaj (2016), who found a significant negative relationship between stress and self-efficacy. The participants who experienced higher levels of stress had lower levels of self-efficacy in coping with it (Lovenjak & Peklaj, 2016).

**Self-efficacy and mental health.** Previous studies have found relationships between self-efficacy, mental well-being and mental health (Cicognani, 2011; Karademas & Kalantzi-Aziz, 2004; Moeini et al., 2008; Schönfeld et al., 2015). In a study of a representative German population aged 18 to 87, Schönfeld et al. (2015) found a significant positive relationship between self-efficacy and positive mental health. Further, higher perceived self-efficacy was associated with lower negative mental health and milder symptoms of stress, depression and anxiety (Schönfeld et al., 2015). Among a group of Iranian male adolescents, Moeini et al. (2008) found that self-efficacy was significantly positively related to mental well-being. In a study on Italian adolescents, Cicognani (2011) found that self-efficacy significantly impacted well-being by reducing the tendency to worry, the belief that there would always be problems, and the tendency to withdraw from situations because they were perceived as unchangeable (Cicognani, 2011). In a study among students at a university in Athens, Karademas and Kalantzi-Aziz (2004) found that self-efficacy expectations were positively related to a positive approach and tension reduction strategies, and negatively to psychological symptoms, self-isolation, and denial or passive acceptance strategies. In a study on Iranian male adolescents, Ghofranipour et al. (2013) found a significant negative relationship between self-efficacy and depression. Schönfeld et al. (2015) found that perceived self-efficacy works as a mediator between daily stressors and

negative mental health. Further, the findings suggest that self-efficacy had the largest mediating effect on positive mental health outcomes compared with negative mental health outcomes (Schönfeld et al., 2015). Similar findings were conducted by Suldo et al. (2008), who found that coping works as a moderator between stress and mental health. Lovenjak and Peklaj (2016) found that if a student believes he can cope with potential stressors efficiently, he will experience the stressors as less threatening.

## Discussion

The aims of this article were to investigate the theoretical background on stress, self-efficacy and mental health in adolescence based on earlier literature and research, and to investigate the empirical basis for the relationship between stress, self-efficacy and mental health in adolescence.

### Self-Efficacy: A Resource for Positive Youth Development

The positive youth development perspective provides a change of focus from risks, dangers and negative aspects of the adolescent period, to focusing on how adolescents become motivated, directed, socially competent and content (Larson, 2000). Focusing on supporting and promoting adolescents' social, emotional, behavioural and cognitive development is important to a healthy development (Catalano et al., 2004). Self-efficacy can be a resource to promote positive growth and development (Catalano et al., 2004), and a resource that can make adolescents more competent to cope with challenges and stressors (Bandura, 1997).

Based on the theory on self-efficacy, it is reasonable to assume that when an individual has high self-efficacy beliefs, he is more motivated to take action, he holds stronger, more positive beliefs about his abilities to prepare for, and deal with, a task,

challenge or stressor and will persist in the face of adversity. When an individual has low self-efficacy beliefs, he is more likely not to attempt to tackle a task, challenge or stressor because he holds poorer beliefs about own abilities. Two individuals may have the same actual skills to cope with a task but hold different efficacy beliefs about their ability to execute it, which will affect if and how they attempt it. Further, an individual may have different levels of self-efficacy in different contexts, such as a social or academic context.

According to Bandura (1997), self-efficacy is the most important factor affecting an individual's cognition and actions. Individuals with low self-efficacy avoid pursuits they believe they cannot perform successfully and that they anticipate will be challenging for them (Bandura, 1997). Individuals with high self-efficacy beliefs view challenges and stressors as manageable and controllable, whereas individuals with lower perceived self-efficacy will experience more anxiety and frustration in coping with challenges and potential stressors (Tsang et al., 2012). Thus, self-efficacy beliefs affect how we interpret challenges and stressors. It is reasonable to assume that individuals with a high sense of self-efficacy cope effectively with stress, which protects against its possible negative impact.

Stress is an inevitable aspect of the human life (Suldo et al., 2008) and is experienced in different intensities and durations throughout adolescence (Compas & Reeslund, 2009). Being able to cope with the stressors of life is important to mental health and to mental well-being (Tennant et al., 2007; WHO, 2014). According to Sarafino (1998), stress results when the interaction between the person and environment lead the individual to perceive a discrepancy, whether real or not, between the demands of a situation and the resources of the persons biological, psychological or social systems. Coping strategies that adolescents engage in to deal with stress, may explain why some adolescents manage effectively with stress while others do not (Suldo et al., 2008), and may explain why not all people who experience stress experience impaired mental health (Schönfeld et al., 2015). By strengthening the individual's

personal resources, such as self-efficacy, the perceived discrepancy between the situation and own resources may be balanced out and make the individual better equipped to cope with stress. High perceived self-efficacy reflects an optimistic self-belief (Schwarzer & Jerusalem, 1995), having confidence in own abilities and coping resources, perseverance and resilience to adversity (Bandura, 1997). Such characteristics may strengthen individuals' ability to cope with stress, which seem to be important to promote mental health and well-being, and to prevent mental health problems.

The positive youth development perspective attempts to focus on promoting and strengthening resources in order to increase competence in adolescents (Larson, 2000). It is noteworthy that previous perspectives have focused on negative aspects of the adolescent period. Resources for positive development, mental health and well-being in adolescence needs further investigation.

## The Relationships Between Stress, Self-Efficacy and Mental Health

Several studies have found strong relationships between stress and mental health (Ghofranipour et al., 2013; Heizomi et al., 2015; Schönfeld et al., 2015; Suldo et al., 2008), stress and self-efficacy (Ghofranipour et al., 2013; Lovenjak & Peklaj, 2016; Mc Kay et al., 2014; Moeini et al., 2008), and self-efficacy and mental health (Cicognani, 2011; Karademas & Kalantzi-Aziz, 2004; Moeini et al., 2008; Schönfeld et al., 2015). According to Galaif et al. (2003) stress, coping behaviours and negative mental health reciprocally influence each other. Stress is suggested to be an important risk factor to mental health problems (Schönfeld et al., 2015), while self-efficacy is suggested to be an important coping resource in reference to stress (Mc Kay et al., 2014), and for positive mental health (Schönfeld et al., 2015). These findings suggest that there is an association between stress, self-efficacy and mental health, and that strengthening adolescents' self-efficacy beliefs can make them cope better with

stress, which in turn can promote mental health and well-being. Individuals with low self-efficacy may believe that things are tougher than they really are, while individuals with high self-efficacy have an optimistic self-belief and believe that they are able to cope with stressors.

**Age and sex differences.** Mental health problems may emerge during late childhood and early adolescence and tend to increase during lower secondary school (Bakken, 2017; WHO, 2017). For girls, the rates of depression begin to increase around the age of 13, whereas boys' rates of depression remain low or may even decrease during adolescence (Gestsdottir et al., 2015). The emerge of mental health problems during this time may be explained by the many changes (biological, psychological, cognitive, educational and social) and increasing expectations adolescents are faced with (Bandura, 2005). This may increase stress, which in turn is a risk factor to mental health problems (Mc Kay et al., 2014).

According to previous studies, mental health problems are more prevalent among girls than boys, and boys tend to have higher mental well-being scores (Bakken, 2017; Cicognani, 2011; FHI, 2018; Gestsdottir et al., 2015; Nolen-Hoeksema, 2001). Further, previous studies on sex differences in stress have found that girls report higher levels of stress than boys (Bancila & Mittelmark, 2005; Mc Kay et al., 2014), and this may be an explanation to why girls experience more mental health problems than boys. Interpersonal stress and worries about daily living has been found to be directly associated with depressed mood among girls (Bancila & Mittelmark, 2005). However, increased stress may also be a result of mental health problems.

Regarding self-efficacy, studies have found that boys report higher levels of general and social self-efficacy, while girls report higher levels of academic self-efficacy. No sex differences were found in emotional self-efficacy (Bacchini & Magliulo, 2003; Cicognani,

2011; Mc Kay et al., 2014). The reasons for the sex differences in mental health, stress and self-efficacy may be complex and explained by different factors. One explanation may be gender-role expectations. Girls are more likely to be socialized to express dysphoria in response to stress, whereas boys are more likely to be socialized to express anger or other forms of externalizing behaviour (Afif, 2007). Girls' coping styles are generally more emotion-focused than that of boys (Matud, 2004), and girls are more likely to internalize problems whereas boys are more likely to externalize problems (Bask, 2014). The prevalence of mental health problems may actually be more even between the sexes than reported, but due to gender-role expectations girls may be more open to report, and seek help for, their problems.

With regards to sex differences in stress, Matud (2004) suggests that sex affects whether a situation will be perceived as stressful, and the choice of coping mechanisms. According to Matud (2004), women find themselves in stressful circumstances more often than men. This may be due to the fact that women appraise threatening events as more stressful than men do, or that women are more likely to be affected by the stress around them as they tend to be more emotionally involved than men in social and family networks (Matud, 2004).

Regarding sex differences in self-efficacy, boys report higher levels of general and social self-efficacy (Bacchini & Magliulo, 2003; Cicognani, 2011; Mc Kay et al., 2014). In addition, they are more likely to externalize problems (Bask, 2014). This may mean that boys have a more optimistic self-belief and do not take failures so personally as girls do. Boys may be more likely to place the reason for failure to external causes, whereas girls direct the reasons for their failures to internal causes. This may have further impact on self-efficacy beliefs and may explain sex differences in self-efficacy.

In addition to sex, individual and contextual differences should be recognized with regards to stress, coping and mental health (Matud, 2004).

**Socioeconomic differences.** Studies have found that mental health problems are more prevalent in lower socioeconomic groups (Huppert & Whittington, 2003; Meilstrup et al., 2016; Reiss, 2013). Further, socioeconomic differences in self-efficacy are found, with high self-efficacy being more prevalent in higher than lower socioeconomic groups (Mazur et al., 2014). This indicates that children and adolescents with lower socioeconomic status (SES; measured by household income, parental educational level and/or parental occupational status) are both more prone to mental health problems and lack the resources, both social and personal, to cope sufficiently. It is therefore reasonable to assume that individuals with lower SES experience higher levels of stress compared to individuals with higher SES.

Socioeconomic gradients in health are well documented, using a range of indicators. However, SES has been measured in numerous ways, making it difficult to know which of multiple components of SES that accounts for the overall association between low SES and mental health problems (McLaughlin, Costello, Leblanc, Sampson & Kessler, 2012). Moeini et al. (2008) for instance, found no significant relationships between perceived stress, general self-efficacy and mental well-being based on parents' educational status. Further research should address which socioeconomic indicators are most important to mental health and self-efficacy.

## Conclusion

The first aim of this article was to investigate the theoretical framework on stress, self-efficacy and mental health in adolescence based on earlier literature and research.
The positive youth development perspective acknowledges the wide variability that characterizes the adolescent period (Santrock, 2008) and the possibilities for growth and

increasing competence (Larson, 2000), and aims to direct focus towards the positive aspects and possibilities for development. A healthy development during adolescence is important to health promotion and prevention of problem behaviours (Catalano et al., 2004). Building and strengthening self-efficacy beliefs in adolescents seems to be important to promote mental health and well-being (Schönfeld et al., 2015) and coping with stress (Mc Kay et al., 2014). Stress is important in understanding adolescent health and may be the cause of mental health problems (Mc Kay et al., 2014; Schönfeld et al., 2015). As stress is an inevitable part of life (Suldo et al., 2008) it is important that adolescents can cope efficiently without negative consequences for mental health and well-being.

Self-efficacy it not concerned with the number of skills an individual has, but the individual's beliefs about own coping resources and abilities in different situations (Bandura, 1997). High self-efficacy affects the courses of action individuals choose to pursue, and reflects an optimistic self-belief, perseverance and resilience to adversity (Bandura, 1997; Schwarzer & Jerusalem, 1995), whereas low self-efficacy beliefs are associated with self-isolation, passive acceptance strategies (Ghofranipour et al., 2013), tendency to worry and to withdraw from situations (Cicognani, 2011). Thus, it is reasonable to conclude that promoting self-efficacy in adolescents will be of importance to growth and positive development and will make them more robust when faced with challenges and stress. This will be important for present health and well-being, as well as for future health, education and work life.

The second aim of the article was to investigate the empirical basis for the relationship between stress, self-efficacy and mental health in adolescence. Based on the empirical findings it is possible to conclude that there is an association between stress, self-efficacy and mental health (Cicognani, 2011; Ghofranipour et al., 2013; Heizomi et al., 2015; Karademas & Kalantzi-Aziz, 2004; Lovenjak & Peklaj, 2016; Mc Kay et al., 2014; Moeini et al., 2008; Schönfeld et al., 2015; Suldo et al., 2008), and that they reciprocally influence each other

(Galaif et al., 2003). Self-efficacy seems to be especially important to positive mental health (Schönfeld et al., 2015), whereas stress seems to be a potential threat to mental health and risk factor for developing mental health problems (Schönfeld et al., 2015; Suldo et al., 2008). This will need further investigation.

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# Article II

# The Role of Stress and Self-Efficacy in Association with Mental Health in Adolescence

Regine Strand
Department of Public Health and Nursing
Norwegian University of Science and Technology, Trondheim

Author Note

Regine Strand, Department of Public Health and Nursing, Norwegian University of Science and Technology, NTNU.

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Correspondence concerning this article should be addressed to Regine Strand, Department of Public Health and Nursing, Norwegian University of Science and Technology, 7491 Trondheim, Norway. E-mail: regins@stud.ntnu.no

## Abstract

This study investigated the relationships between stress and general self-efficacy (GSE) in association with mental health in an adolescent sample, controlled for sex, age and socioeconomic status (SES). The study was based on a cross-sectional sample of Norwegian adolescents (n=1233), aged 13 to 19 years. Results showed significant sex differences on all domains, with girls reporting higher levels of stress and symptoms of depression, and lower levels of GSE and mental well-being than boys. The results from the regression analysis showed that the model explained 37 % of the variance in mental well-being and 47 % of the variance in symptoms of depression. Significant negative associations were found between stress and mental well-being, and between GSE and symptoms of depression. Further, significant positive associations were found between GSE and mental well-being, and between stress and symptoms of depression. Both stress and GSE was significantly associated with mental health outcomes, but no causal conclusion was possible.


*Keywords:* adolescence, depression, mental health, mental well-being, self-efficacy, stress

Adolescence is a developmental period with many challenges and opportunities for growth and positive development (Bandura, 2005). Adolescents go through biological, educational and social changes, and the period has often been characterized as a time of psychosocial turmoil and discontinuity (Bandura, 2005). A popular perspective on adolescence stems from 1904 and G. Stanley Hall's storm and stress theory. According to Hall (1904), storm refers to decreased self-control while stress refers to increased sensitivity to both internal and external stimuli. Storm and stress is seen as a natural part of development during adolescence, and can cause conflict with parents, mood disruptions and risky behaviour (Hall, 1904). In more recent years, the description of adolescence as a period of storm and stress has received little support. According to Bandura (1964), most adolescents do not necessarily consider their life as stormy, and there has been a growing recognition for this view. According to Santrock (2008) most adolescents are not as disturbed and troubled as popular stereotypes suggests, and today's perspectives recognize the wide variability that characterizes development during this period, and opportunities for growth and positive development (Santrock, 2008).

Mental health is defined by the World Health Organization (WHO) as "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to his or her society" (WHO, 2014, para. 1). Further, the positive dimension of mental health is stressed in WHO's definition of health, as health is defined as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 2014, para. 2). In positive psychology, mental well-being is often covered by two distinct perspectives – the hedonic perspective, which focuses on the subjective experience of happiness and life satisfaction, and the eudemonic perspective, focusing on psychological functioning and self-realization (Tennant et al., 2007). According to Heizomi, Allahverdipour, Jafarabadi and

Safaian (2015), mental well-being affects the lives of individuals and communities due to a higher quality of life, better physical health, social integration and overall well-being. Poor mental health may have negative effects on physical health as well as mental well-being. Lack of mental well-being could lead to the development of a mental disorder and the loss of functional ability (Heizomi et al., 2015).

Most adolescents are considered healthy as defined by traditional medical markers of health status, such as mortality rates, incidence of disease, prevalence of chronic conditions, and use of health services (Lawrence, Gootman & Sim, 2009). However, mental health problems may emerge during late childhood and early adolescence (WHO, 2017) and tend to increase during lower secondary school (Bakken, 2017). According to the WHO (2017) about 10 to 20 percent of children and adolescents worldwide experience mental health problems. A study among Norwegian adolescents, *Ungdata 2017,* found that most Norwegian adolescents are content, have good relationships with friends and family, are physically active, and have a positive outlook on the future (Bakken, 2017). However, 15 to 20 percent of children and adolescents experience mental health problems, and about eight percent fulfil the diagnostic criteria of a mental disorder (Helse- og omsorgsdepartementet, 2017). Further, there has been an increase in mental health problems such as symptoms of stress and thoughts of distress and worry, especially among girls (Bakken, 2017). Similar findings were conducted by Folkehelseinstituttet (FHI, 2018), who found that an increasing number of girls report mental health problems and seek help for their problems.

Poor mental health can affect the overall health and development of adolescents, and is associated with higher alcohol, tobacco and illicit substance use, adolescent pregnancy, school dropout and delinquent behaviours (WHO, 2017). Further, mental health problems in adolescence may track into adulthood (Meilstrup et al., 2016). In a longitudinal study, Fergusson and Woodward (2002) found that adolescents with depression are at increased risk

of depression in adulthood and at increased likelihood dropping out of education and work life. Studies have found that mental health problems are more prevalent among girls than boys (Cicognani, 2011; Gestsdottir et al., 2015; Nolen-Hoeksema, 2001). According to Gestsdottir et al. (2015) females' psychological distress increase much more than males' during adolescence. Women are twice as likely as men to experience depression, whether depression is indexed as a diagnosed mental disorder or as subclinical symptoms. Sex differences are also commonly found in psychological well-being with women reporting lower levels of mental well-being (Gestsdottir et al., 2015). Further, studies have found that mental health problems are more prevalent in lower socioeconomic groups (Huppert & Whittington, 2003; Meilstrup et al., 2016; Reiss, 2013). Meilstrup et al. (2016) found that significantly more of children from families with low socioeconomic status (SES) experience daily emotional symptoms compared to children from families with high SES.

Exposure to stressful events (stressors) represents significant sources of risk in adolescents' development, and stressors are experienced in different intensities and durations throughout adolescence (Compas & Reeslund, 2009). According to Sarafino (1998), stress is "the condition that results when person and environment transactions lead the individual to perceive a discrepancy, whether real or not, between the demands of a situation and the resources of the persons biological, psychological, or social systems" (Sarafino, 1998, p. 70). Previous studies have found significant sex differences in stress (Bancila & Mittelmark, 2005; Mc Kay, Dempster & Byrne, 2014). Girls report higher levels of stress than boys, especially regarding interpersonal stressors such as peers, romantic partners and family relationships (Mc Kay et al., 2014). The experience of stress in adolescence is suggested to be important in understanding adolescent health, and some evidence suggests that stress in adolescence is related to the occurrence of psychiatric symptomatology such as aggression, depression, anxiety, suicidal ideation and actual risk of suicide (Mc Kay et al., 2014). Several

studies have found relationships between stress and mental health problems such as anxiety and depression (Ghofranipour, Saffari, Mahmoudi & Montazeri, 2013; Heizomi et al., 2015; Schönfeld, Brailovskaia, Bieda, Zhang & Margraf, 2015; Suldo, Shaunessy & Hardesty, 2008). Ghofranipour et al. (2013) found a significant positive relationship between perceived stress and depression. Similar findings were conducted by Suldo et al. (2008) who found that perceived stress was positively correlated with psychopathology and negatively correlated with positive indicators for mental health such as academic self-efficacy and life satisfaction among adolescents participating in an international baccalaureate programme. However, stress was not necessarily linked with diminished academic and social functioning. Coping strategies, such as emotion-focused or problem-focused, were of importance to mental health outcomes (Suldo et al., 2008). Stress is an inevitable aspect of life, and coping is thought to be crucial to mental health outcomes that may have further impact on health (Suldo et al., 2008). Coping behaviours adolescents engage in to deal with stressors may explain why some adolescents manage effectively and successfully while others do not (Suldo et al., 2008).

Self-efficacy is an important coping resource when faced with everyday stressors and challenges (Bandura, 1997), and it is important to gain knowledge about how to strengthen and preserve it throughout the adolescent period. Self-efficacy is defined as “an individual’s belief in one’s abilities to organize and execute the course of action required to produce given outcomes” (Bandura, 1997, p. 3). Self-efficacy beliefs are not concerned with the number of skills the individual has, but the individual’s beliefs about own coping resources and abilities in different situations (Bandura, 1997). Motivation, affective states and actions are dependent on what the individual believes, rather than on what is objectively true (Bandura, 1997). Several studies have found a significant negative relationship between stress and self-efficacy (Ghofranipour et al., 2013; Lovenjak & Peklaj, 2016; Mc Kay et al., 2014; Moeini et al., 2008). A study of Mc Kay et al., (2014) found that self-efficacy beliefs plays an important

role in stress levels and outcomes, and that individuals with higher self-efficacy report lower levels of stress. Self-efficacy acts as a moderator of stress and has a protective function in individuals' responses to stress (Mc Kay et al., 2014). Further, previous studies have found relationships between self-efficacy and mental health (Cicognani, 2011; Karademas & Kalantzi-Aziz, 2004; Moeini et al., 2008; Schönfeld et al., 2015). In a study of a representative German population aged 18 to 87, Schönfeld et al. (2015) found a significant relationship between self-efficacy and mental health. Higher perceived self-efficacy was associated with lower negative mental health and milder symptoms of stress, depression and anxiety (Schönfeld et al., 2015). In a study among Italian adolescents, Cicognani (2011) found that male adolescents scored higher on general self-efficacy than did female adolescents. When dividing self-efficacy into domains such as emotional, social and academic self-efficacy, Mc Kay et al. (2014) found that boys scored significantly higher on social self-efficacy, females scored significantly higher on academic self-efficacy, while there were no sex differences for emotional self-efficacy. Similar findings were conducted by Bacchini and Magliulo (2003), who found that girls show a higher perception of efficacy in academic tasks.

## Aims

It is important to gain knowledge and understanding about the relationships between stress, self-efficacy and mental health in adolescence. This knowledge will be valuable to public health, and in the context of the adolescents, such as school and leisure time activities, to implement individual and universal measures to promote mental health and well-being in adolescence. Therefore, the aims of this study were 1) to investigate sex differences in association with stress, general self-efficacy (GSE) and mental health (mental well-being and

symptoms of depression) and 2) to investigate the roles of stress and GSE in association with mental health, controlled for sex, age and socioeconomic status.

## Method

### Participants

This cross-sectional study is based on data from the project *"Oppvekst i bygder"* which includes five public lower, and three public upper secondary schools in six rural municipalities in the county of Sør-Trøndelag in Norway. The survey consists of items about adolescents' experiences of health, school, leisure time activities, physical activity, risk behaviours and thoughts about the future. The schools have participated in the study every five years since 1996 (Aspvik, Sæther & Ingebrigtsen, 2012). Data used in this paper are from the 2016 data collection, where 1906 students from these eight schools were invited to the study, with N=1282 responding to the questionnaire (response rate 67.3 %). Number of respondents from each municipality ranged from n=16 (1.3 %) to n=370 (30 %). Non-responses were a result of students not being at school at the time of the data collection or a non-willingness to participate. No detailed information was available on the non-respondents.

To have a sample of the typical age group in lower and upper secondary schools, adolescents under 13 or over 19 years (n=49) were excluded, resulting in n=1233 (96,2 %) adolescents being included in the study; (580 (47.0 %) girls and 644 (52.2 %) boys). The mean±SD age was 15.6±1.6 years for the total sample; for boys it was 15.7±1.6 years and for girls it was 15.5±1.6 years. Regarding socioeconomic status (SES), 40.6 % of the participants had parents with lower or upper secondary school as highest level of education, while 59.4 % of the participants had parents with higher education. The vast majority of the participants had parents working part time or full time (92.7 %). Almost a third of the participants (29.6 %) reported that their family's economy was bad, 21.9 % of the participants reported that their

family's economy was neither good nor bad, and 48.3 % of the participants reported that their family's economy was good.

## Procedures

Consent to collect data was received from the Regional Committee for Medical Research Ethics (REK) (approval number 2016/1165) and The Norwegian Social Science Data Services (NSD). Before the data was collected, a written information letter was sent to all students and to parents of those under 16 years of age, accentuating that participation was voluntary and anonymous, that participants were free to withdraw from the study and that the collected information was treated confidentially. For adolescents 16 years old and younger, written consent was needed from the adolescents and their parents according to research ethical guidelines. Adolescents from 16 years and older consented by answering the questionnaire. The questionnaire was administered with help from teachers in whole class groups during a regular school session of 45 minutes during the fall of 2016.

## Measures

*Stress* was measured with the 30-item Norwegian version of the Adolescent Stress Questionnaire (ASQ-N). The ASQ originally consists of 56 items designed to measure stressors adolescents may experience in everyday life, such as interpersonal relationships and school (Byrne, Davenport & Mazanov, 2007). The ASQ allows adolescents to report the extent to which any recent stressor experience has caused a psychological challenge for them (Moksnes & Espnes, 2011). Each item was rated on a five-point Likert scale ranging from 1 (not at all stressful or irrelevant to me) to 5 (very stressful) and is validated for use in Norwegian adolescents (Moksnes & Espnes, 2011). Higher scores indicate higher stress levels. Validations of the ASQ-N have reduced the scale to a 30-item version which has been tested with reference to internal consistency and construct validity, reflecting seven stress

dimensions: teacher/adult interaction, peer pressure, home life, romantic relationships, school attendance, school/leisure conflict, and school performance (Moksnes & Espnes, 2011). In the present study, stress was analysed using the mean score, not differentiating between different stress dimensions. Cronbach's α for the instrument in the present study was 0.94.

*Self-efficacy* was measured using the 10-item General Self-Efficacy Scale (GSE), assessing optimistic self-beliefs used to cope with demands in life (Schwarzer & Jerusalem, 1995). Each item was rated on a 4-point Likert scale ranging from 1 (not at all true) to 4 (exactly true). Higher scores indicate higher self-efficacy. The psychometric properties of the GSE is found to be adequate in different samples across cultures, including age groups from 12 to 94 years old (Scholz, Dona, Sud & Schwarzer, 2002). Further, there is support for that the instrument is a valid and reliable one-dimensional scale with adequate construct validity (Luszczynska, Scholz & Schwarzer, 2005; Löve, Moore & Hensing, 2012). The internal consistency assessed by Cronbach's α has been found to be high, with values above α=0.80 (Scholz et al., 2002). Cronbach's α for the instrument in the present study was 0.93.

*Mental well-being* was measured using the 14-item Warwick-Edinburgh Mental Well-Being Scale (WEMWBS), measuring subjective well-being and psychological functioning (Tennant et al., 2007). The WEMWBS covers both the hedonic and the eudemonic perspective on mental health (Tennant et al., 2007). All items are positively worded (Putz, O'Hara, Taggart & Stewart-Brown, 2012), and the items were rated on a 5-point Likert scale ranging from 1 (none of the time) to 5 (all of the time) where higher scores indicate higher mental well-being. The Norwegian version of the WEMWBS has been validated in Norwegian adolescents, and the scale showed high internal consistency with Cronbach's α of 0.93 (Ringdal, Eilertsen, Bjørnsen, Espnes & Moksnes, 2017). Cronbach's α for the instrument in the present study was 0.91.

*Symptoms of depression* were measured using a 15-item non-clinical depression scale appropriate for measuring non-clinical depressive attributes (Byrne et al., 2007). The scale consists of a short, 15-item questionnaire that measured respondents' levels of current depressive moods. Item choice was informed by reference to commonly experienced depressive features outlined in the Diagnostic and Statistical Manual-Fourth Edition (DSM: American Psychiatric Association, 2000), and reference was also made to the Zung Self Rating Depression Scale (Zung, 1965). The items were rated on a 5-point Likert scale ranging from 1 (never) to 5 (always) where higher scores indicate more symptoms of depression. Cronbach's α for the instrument in the present study was 0.94.

*Demographics* included questions about sex, age and socioeconomic status (SES). Firstly, SES was measured by parents' level of education, ranging from 1 (lower secondary school) to 4 (college/university 4 years or more), where higher scores indicate higher education. Secondly, SES was measured by parents' occupational status, where they were categorized as working or non-working, respectively dummy coded into 0 and 1. Finally, SES was measured by family economy, ranging from 1 (always bad) to 5 (always good), where higher scores indicate better family economy.

## Statistical Analyses

Statistical analyses were conducted using SPSS, version 25. The missing percentage varies between the relevant items and indexes. Thus, the active sample size ranged between n=716 to 1233. To include as many respondents as possible, cases were excluded pairwise. Prior to the analyses, Cronbach's alpha coefficients were examined to assess internal consistency of the scales. No items from the original scales were removed. Descriptive statistics including means and SDs were calculated for the scales in the study. Independent-samples t-test was conducted to investigate possible sex mean differences in the variables.

Bivariate correlations between the variables of age, parents' level of education, family economy, stress, general self-efficacy, mental well-being and symptoms of depression were tested using Pearson's product moment correlation. A linear multiple regression analysis was conducted to investigate relations between stress and self-efficacy and the outcome of mental well-being and symptoms of depression, controlled for sex, age, socioeconomic status. Statistical significance was set to $p<0.05$.

# Results

## Descriptive Analyses

Table 1

*Mean±SD Values for the Total Sample*

| | Stress (n=747) | GSE (n=716) | MWB (n=765) | SOD (n=763) |
|---|---|---|---|---|
| Girls | 2.11±0.72 | 2.91±0.50 | 3.32±0.71 | 2.41±0.87 |
| Boys | 1.78±0.65 | 3.01±0.61 | 3.57±0.68 | 1.88±0.72 |
| Total | 1.95±0.71 | 2.96±0.56 | 3.44±0.71 | 2.15±0.84 |
| Range | 1-5 | 1-4 | 1-5 | 1-5 |
| *t* | 6.43*** | -2.22* | -4.95*** | 9.16*** |

*Note.* * significant at the 0.05-level, *** significant at the 0.001-level. GSE: general self-efficacy, MWB: mental well-being, SOD: symptoms of depression.

Table 1 presents an overview of the mean scores for sex on stress, general self-efficacy (GSE), mental well-being and symptoms of depression. Regarding stress and symptoms of depression, results show relatively low mean scores among the adolescents. For stress, the mean score equalled the reference value "Somewhat stressful" and "Almost never" for symptoms of depression. Regarding GSE and mental well-being, the means were relatively high. For GSE, the mean score equalled the reference value "Mostly true" and "Some of the time" for mental well-being. The standard deviations show a low level of dispersion on the variables. Independent-samples t-tests were conducted to compare sex and respectively stress,

GSE, mental well-being and symptoms of depression. There were significant sex differences on all domains, with girls reporting higher levels of stress and symptoms of depression, and lower levels of GSE and mental well-being than boys.

## Correlation Analysis

Table 2

*Correlations Between Age, Socioeconomic Status, Stress, Self-Efficacy, Mental Well-Being and Symptoms of Depression*

| | Age | EDU | ECO | Stress | GSE | MWB | SOD |
|---|---|---|---|---|---|---|---|
| Age | - | -0.06 | 0.19** | 0.125** | -0.008 | -0.086* | 0.136** |
| EDU | | - | -0.05 | -0.095 | 0.145** | 0.103 | -0.104 |
| ECO | | | - | -0.086* | 0.220** | 0.246** | -0.225** |
| Stress | | | | - | -0.212** | -0.294** | 0.580** |
| GSE | | | | | - | 0.553** | -0.386** |
| MWB | | | | | | - | -0.585** |
| SOD | | | | | | | - |

*Note.* * significant at the 0.05-level, ** significant at the 0.01-level. EDU: parents' level of education, ECO: family economy, GSE: general self-efficacy, MWB: mental well-being, SOD: symptoms of depression.

The correlation analysis is displayed in Table 2. There was a weak, significant positive correlation between age and family economy, age and stress, and age and symptoms of depression, and a weak, significant negative correlation between age and GSE, and age and mental well-being. Regarding parents' level of education, there was a weak, significant positive correlation with GSE. There were no significant correlations between parents' level of education and stress, mental well-being or symptoms of depression. Family economy was weakly, but significantly positively correlated with GSE and mental well-being, and weakly, but significantly negatively correlated with stress and symptoms of depression. There was a strong, significant positive correlation between stress and symptoms of depression, and a

weak, significant negative correlation with stress and GSE, and stress and mental well-being. GSE was strongly, significantly positively correlated to mental well-being, and moderately, negatively correlated to symptoms of depression. There was a strong, negative correlation between mental well-being and symptoms of depression.

## Linear Multiple Regression Analysis

Table 3 presents the results of the linear multiple regression analysis investigating the relations between the independent variables sex, age, SES, stress and GSE, and the dependent variables mental well-being and symptoms of depression. A significant regression equation was found. The model explained 37 % of the variance in mental well-being, and 47 % of the variance in symptoms of depression. Of these variables, GSE made the largest unique contribution (β= 0.48) to explaining mental well-being, and stress made the largest unique contribution (β= 0.46) to explaining symptoms of depression when the variance explained by all other variables was controlled for.

Boys reported higher scores on mental well-being than girls, whereas girls reported higher levels of symptoms of depression than boys. Age showed a non-significant relation with both mental well-being and symptoms of depression, indicating that adolescents seem to have a stable perception of mental well-being and symptoms of depression across age groups. No significant associations were found between parents' level of education and mental well-being or symptoms of depression. There was no significant relation between parents' occupational status and GSE but there was a significant relation between parents' occupational status and symptoms of depression (β= 0.08). Respondents with parents who were not working reported higher levels of symptoms of depression. Family economy was significantly positively associated with mental well-being (β= 0.13), and significantly negatively associated with symptoms of depression (β= -0.14). Significant negative

associations were found between stress and mental well-being (β= -0.15), and between GSE and symptoms of depression (β= -0.23). Significant positive associations were found between GSE and mental well-being (β= 0.48), and between stress and symptoms of depression (β= 0.46).

Table 3

*Summary of the Linear Multiple Regression Analysis for the Variables Associated with Mental Well-Being and Symptoms of Depression*

| | Mental Well-Being | | | | | Symptoms of Depression | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *B* | SE *B* | β | *F* | $R^2$ | *B* | SE *B* | β | *F* | $R^2$ |
| Constant | 2.07 | 0.42 | | 26.17*** | 0.37 | 1.85 | 0.46 | | 40.17*** | 0.47 |
| Sex | 0.14 | 0.06 | 0.10* | | | -0.32 | 0.07 | -0.19*** | | |
| Age | -0.02 | 0.02 | -0.04 | | | 0.03 | 0.02 | 0.06 | | |
| EDU | 0.02 | 0.04 | 0.02 | | | -0.02 | 0.04 | -0.02 | | |
| POS | -0.13 | 0.12 | -0.05 | | | 0.26 | 0.13 | 0.08* | | |
| ECO | 0.07 | 0.02 | 0.13** | | | -0.09 | 0.03 | -0.14*** | | |
| Stress | -0.15 | 0.05 | -0.15** | | | 0.54 | 0.05 | 0.46*** | | |
| GSE | 0.60 | 0.06 | 0.48*** | | | -0.34 | 0.06 | -0.23*** | | |

*Note.* * significant at the 0.05-level, ** significant at the 0.01-level, *** significant at the 0.001-level. EDU: parents' level of education, POS: parents' occupational status (working/non-working), ECO: family economy, GSE: general self-efficacy.
Sex: value 0, girls; value 1, boys. POS: value 0, working; value 1, non-working.

## Discussion

This study explored the association between sex, age, socioeconomic status (SES), stress and self-efficacy (GSE) with two mental health outcome variables (mental well-being and symptoms of depression) in Norwegian adolescents aged 13 to 19 years. Results showed significant sex differences on all domains, with girls reporting higher levels of stress and symptoms of depression than boys, whereas boys scored significantly higher on GSE and mental well-being. Age was not significantly associated with mental well-being or symptoms of depression. No significant association was found between parents' level of education and

mental well-being or symptoms of depression. Parents' occupational status was not significant to mental well-being, but there was a significant relation between parents' occupational status and symptoms of depression. Family economy was significantly positively associated with mental well-being, and significantly negatively associated with symptoms of depression. Significant negative associations were found between stress and mental well-being, and between GSE and symptoms of depression. Further, significant positive associations were found between GSE and mental well-being, and between stress and symptoms of depression.

The first aim of the study was to investigate sex differences in association with stress, general self-efficacy and mental health outcomes. The results are related to previous studies showing that, where sex differences are found, girls seem to report poorer mental health than boys (Bakken, 2017; Cicognani, 2011; Gestsdottir et al., 2015; Nolen-Hoeksema, 2001), whereas boys score more positively on mental health. Further, girls reported higher levels of stress and lower levels of GSE than boys. These results support previous findings (Bancila & Mittelmark, 2005; Cicognani, 2011; Mc Kay et al., 2014). The finding that girls scored lower on GSE may indicate that they have more difficulties in coping efficiently with stress and, as a result, experience more stress. The experience of stress may put girls at increased risk of mental health problems but increasing mental health problems may also cause them more stress. These factors may reciprocally influence each other, and no causal conclusion can be drawn.

The reasons for the sex differences may be complex and can be explained by personal, cultural and social factors. Gender-role expectations influence people's susceptibility to different health conditions, and affect physical and mental health (WHO, 2015). According to Afif (2007), gender stereotypes regarding mental health appear to reinforce social stigma and constrain help-seeking along stereotypical lines. Women's mental health problems have been hypothesised to being caused by a sensitivity to physical symptoms and to the social

acceptability of sick roles in women. Men may react different in response to stress, with antisocial behaviour and substance abuse. They are more likely to have been socialised to express anger or other forms of externalizing behaviour, whereas women are more likely to have been socialised to express dysphoria in response to stress. In support of this, studies have found that expected sex differences in depressive disorders were balanced out by higher male rates of alcohol and substance abuse (Afif, 2007). Gender-role expectations may affect the ways in which girls and boys respond to, and cope with stress, how they express mental health problems, and what they report or seek help for. In addition to sex, individual and contextual differences should be recognized with regards to stress, coping and mental health (Matud, 2004). Further, the measurements used may have an impact on how and what respondents report (Ringdal, 2013).

The second aim of the study was to investigate the roles of stress and GSE in association with mental health, controlled for sex, age and SES. The results showed that higher levels of stress were related especially strongly with higher symptoms of depression, but also with more negative evaluation of mental well-being. Further, the results showed that higher levels of GSE was especially strongly related to more positive evaluation of mental well-being, and with lower levels of symptoms of depression. These findings are supported by previous studies (Cicognani, 2011; Ghofranipour et al., 2013; Heizomi et al., 2015; Karademas & Kalantzi-Aziz, 2004; Moeini et al., 2008; Schönfeld et al., 2015; Suldo et al., 2008). Stress and GSE make important contributions to adolescents' mental health. GSE explained most of the variance in mental well-being, whereas stress explained most of the variance in symptoms of depression. These findings support the acknowledgement of GSE as an important resource to positive mental health and well-being (Schönfeld et al., 2015), and that stress is associated with mental health problems (Ghofranipour et al., 2013; Heizomi et al., 2015; Schönfeld et al., 2015; Suldo et al., 2008). Thus, GSE seem to be especially

important to promote mental health and well-being, whereas low stress levels seem to be especially important to prevent mental health problems such as depression. However, better mental well-being may also cause individuals to perceive a higher sense of self-efficacy and mental health problems such as depression may cause individuals to experience more stress. These factors may reciprocally influence each other, and causal conclusions can not be drawn from this study. However, with regards to stress, Schönfeld et al. (2015) argue that stress is both a predictor and an outcome of depression, and according to Galaif et al. (2003) stress, coping behaviours and negative mental health reciprocally influence each other.

There was no significant association between age and mental well-being or symptoms of depression, suggesting that adolescents have a stable perception of mental well-being and symptoms of depression across age groups. These findings are somehow contrary to research showing that mental health problems tend to increase during lower secondary school (Bakken, 2017).

Regarding SES, there was a significant positive relationship between family economy and mental well-being, and whether parents were working or non-working and symptoms of depression. There was a significant negative relationship between family economy and symptoms of depression. These findings are supported by previous findings stating that mental health problems are more prevalent in lower socioeconomic groups (Huppert & Whittington, 2003; Meilstrup et al., 2016; Reiss, 2013). Previous studies have found that self-efficacy is more prevalent in children from higher socioeconomic groups (Mazur, Malkowska-Szkutnik & Tabak, 2014; Meilstrup et al., 2016), indicating that children from lower socioeconomic groups are both more vulnerable to mental health problems, and do not have sufficient resources to cope with stressors.

Parents' level of education was not significantly associated with neither mental well-being or symptoms of depression. Similar findings were conducted by Moeini et al. (2008)

who found no significant relationship between mental well-being and parents' educational status. These findings indicate that family economy and whether parents are working or not, are significant to adolescents' mental health and well-being.

## Strengths and Limitations

This study has several strengths that should be addressed. First, the survey has a large sample size (n=1233) and a good response rate (67.3 %). Secondly, the use of validated instruments and the high internal consistency of the scales strengthens the results validity. Thirdly, the findings are of high social, empirical and public health relevance given the findings on GSE and stress in association with mental health in an adolescent sample.

This study also has several limitations. Firstly, all the findings are based on self-reported data from questionnaires. Self-reporting requires that respondents understand and reflect around the questions and evaluate and report reliably. Self-reporting bias such as under- and overreport, understanding, social desirability and/or the rating scales may be issues with such data (Hoskin, 2012). The main criticism of self-reported data is the subjectivity (Norwick, Choi, Ben-Shachar & Bartoshuk, 2002). However, when investigating subjective phenomena, it is a useful method to obtain subjective information (Norwick et al., 2002). Secondly, there is a possibility that other confounding variables that are not included in the analyses can have an impact on the outcome. The regression model explained 37 % of the variance in mental well-being and 47 % of the variance in symptoms of depression. It is therefore presumable to expect that some important confounders are missing in the analyses. Thirdly, the data are from a cross-sectional survey, therefore no causal relationships can be made, and associations found can be reciprocal (Thelle & Laake, 2015).

With regards to generalizability, this sample consists of adolescents living in rural municipalities in Sør-Trøndelag in Norway, and there may be differences between the sample

and adolescents living in urban areas. Elgar, Arlett and Groves (2003) compared rural and urban adolescents living in Newfoundland and found that there were some differences between rural and urban adolescents. Among urban adolescents, males reported more conflict than females. However, among rural adolescents, males and females reported similar levels of conflict. There were no overall rural/urban differences in levels of self-reported stress (Elgar et al., 2003). A study by Quine et al. (2003) on rural-urban differences among adolescents in Australia, revealed certain health concerns that were common to both rural and urban adolescents such as drug use, bullying, diet and body image, stress and depression. Some concerns were mentioned more frequently in rural areas, such as depression, and two concerns were raised almost exclusively by rural youth, namely youth suicide and teenage pregnancy (Quine et al., 2003). Therefore, it would be ideal to have both rural and urban adolescents included in the study.

## Conclusion and Implications for Further Practice and Research

Despite the limitations of this study, it gives important contributions to the literature. Firstly, it extends the understanding of the importance of strengthening factors that can promote mental health, in addition to providing a protective effect against mental health problems. This is especially relevant considering the prevalence of mental health problems in adolescents, and the consequences mental health problems can have for adult life (Bakken, 2017; Fergusson & Woodward, 2002; WHO, 2017). Secondly, GSE and stress proved to be important in association with both mental well-being and symptoms of depression.

On the basis of the presented data, it can be claimed that stress is associated with mental health as it explained most of the variance in symptoms of depression and was related to a more negative evaluation of mental well-being. GSE explained most of the variance in mental well-being. Thus, it can be claimed that GSE is associated with mental health as it was

associated with better mental well-being and lower levels of symptoms of depression. GSE needs to be strengthened and preserved throughout the adolescent period and into adulthood in order to cope with stress and maintain and promote positive mental health and well-being.

The results presented in this article encourage further research providing causal explanations, including other variables that could influence the outcome of mental health. A longitudinal design would have been preferable to draw a stronger conclusion about which variables predict the outcome of mental well-being and symptoms of depression. This should be studied in future research.

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## Main Conclusion

This master's thesis investigated the relationship between stress, self-efficacy and mental health in adolescence in two connected, scientific articles. The first article is a theoretical article investigating the literature on stress, self-efficacy and mental health in adolescence, as well as the empirical basis for the relationships between the constructs. The second article is an empirical article conducting statistical analyses using SPSS, based on the cross-sectional survey *"Oppvekst i bygder"*. The empirical article builds on theoretical and empirical findings from the theoretical article and aims to investigate if current data are consistent with previous findings or not.

Previous perspectives on adolescence have described it as a time of storm and stress, and turmoil and discontinuity. Current perspectives on adolescence, such as the positive youth development perspective, focus on possibilities for growth, positive development and increasing competence during this period. Positive development during adolescence is important to health behaviour, school achievements and overall well-being, and will have positive effects on present and future health and well-being. Mental health problems often emerge during adolescence and stress is considered to be a risk factor to the development of mental health problems. Stress has a significant negative impact on adolescents' mental well-being and is significantly positively associated with symptoms of depression. A high sense of self-efficacy as significantly positively associated with adolescents' mental well-being and significantly associated with lower levels of symptoms of depression. The findings give important contributions to the literature as it extends the understanding of strengthening factors that can promote mental health, in addition to providing a protective effect against mental health problems. The findings will be of relevance when planning and implementing individual and structural measures in health promotion directed toward adolescents.

## Appendix A: "Oppvekst i bygder" Questionnaire

# SPØRREUNDERSØKELSE OM OPPVEKST I BYGDER

**Bakgrunn:** Med dette inviterer vi deg til å delta i spørreundersøkelsen «Oppvekst i bygder». Undersøkelsen gjennomføres blant ungdommer i ungdomsskole og videregående skole i seks bygdekommuner i Sør-Trøndelag. Undersøkelsen gjennomføres ved NTNU Senter for helsefremmende forskning og Institutt for sosiologi og statsvitenskap, NTNU

**Hva innebærer undersøkelsen?** Vi ber deg om å svare på spørsmålene i spørreskjemaet individuelt i løpet av en skoletime Spørsmålene handler om hvordan du opplever helsa di, om bruk av rusmidler, deltakelse i idrett og fysisk aktivitet, trivsel i nærmiljøet og fritidsaktiviteter. Alle som deltar i undersøkelsen er anonyme, og alle opplysninger behandles konfidensielt.

**Mulige fordeler og ulemper:** Å svare på spørreskjemaet har ingen kjente negative konsekvenser. Bidraget ditt som deltaker kan gi viktig kunnskap om ungdoms opplevelse av hverdagsliv, helse og trivsel i bygdekommuner. Har du likevel behov for å prate med noen om spørsmålene i undersøkelsen, kan du ta kontakt med helsesøster ved din skole.

**Frivillig deltakelse:** Det er frivillig å delta i undersøkelsen, og det er ikke en del av skolens undervisning. Hvis du ikke vil delta, har det ingen konsekvenser for deg, og du kan i stedet jobbe med skolearbeid og levere blankt spørreskjema. Elever over 16 år sier ja til å være med ved å levere utfylt spørreskjema. Elever under 16 år må ha skriftlig tillatelse fra foresatte for å være med. Siden deltakerne i denne undersøkelsen er anonyme, er det ikke mulig å trekke seg etter at skjemaet er levert inn.

Prosjektet er godkjent av Regional komité for medisinsk og helsefaglig forskningsetikk, Midt-Norge (REK). Av kontrollhensyn vil prosjektdata bli oppbevart i 5 år etter at sluttmelding er sendt til REK.

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

Jan Erik Ingebrigtsen
Institutt for sosiologi og statsvitenskap / NTNU Samfunnsforskning AS, Senter for skole og idrettsfag, tlf. 73 59 17 67.

Geir Arild Espnes
Institutt for sosialt arbeid og helsevitenskap / NTNU Senter for helsefremmende forskning, tlf. 73 41 21 52.

NTNU
Kunnskap for en bedre verden

| | |
|---|---|
| *LES DETTE FØR DU STARTER!* | Skjemaet skal leses maskinelt. Vennligst følg disse reglene:<br>• *Bruk svart/blå kulepenn. Skriv tydelig, og ikke utenfor feltene.* ***Kryss av slik:*** ☒.<br>• *Feilkryssinger kan strykes ved å fylle hele feltet. Kryss så i rett felt.*<br>• *Sett bare ett kryss på hvert spørsmål om ikke annet er oppgitt.* |

### A. BAKGRUNNSINFORMASJON

1. Er du jente eller gutt?: ⇨ Jente ☐ 1 Gutt ☐ 2

2. Hvilken klasse går du i? ⇨ 8. kl. ☐ 8 9. kl. ☐ 9 10. kl. ☐ 10 VGS1 ☐ 11 VGS2 ☐ 12 VGS3 ☐ 13

3. I hvilken *måned* er du født, og i hvilket *år*? ⇨ ☐☐☐☐

Januar ☐ 1 Februar ☐ 2 Mars ☐ 3 April ☐ 4 Mai ☐ 5 Juni ☐ 6 Juli ☐ 7 August ☐ 8 September ☐ 9 Oktober ☐ 10 November ☐ 11 Desember ☐ 12

4. I hvilken kommune bor du? ⇨ Oppdal ☐ 1 Melhus ☐ 2 Midtre Gauldal ☐ 3 Orkdal ☐ 4 Osen ☐ 5 Roan ☐ 6

5. Hvor lenge har du bodd i denne kommunen? ⇨ Hele livet ☐ 1 Over 10 år ☐ 2 5 – 10 år ☐ 3 Under 5 år ☐ 4



*Før du fortsetter: Kontroller at du ikke har glemt noe på denne sida.*

Husk: Bare ett kryss på hvert spørsmål.

6. Hvor mange km unna skolen bor du? *Vennligst oppgi avstanden i antall km med ett desimal. Vær nøye med å plassere tallene riktig før/etter komma!* ⇨ ☐☐,☐

7. Hvor bor du? ⇨ På garsdsbruk ☐1 I enebolig ☐2 I rekkehus ☐3 I leilighet ☐4

8. Har du eget rom? ⇨ Ja ☐1 Nei ☐2

9. Hva er dine foreldres/foresattes *høyeste* fullførte utdanning? ⇨

*NB: Sett ett kryss for mor / kvinnelig foresatt, og ett for far / mannlig foresatt.*

| | Mor | Far |
|---|---|---|
| Grunnskole | ☐1 | ☐1 |
| Videregående skole | ☐2 | ☐2 |
| Høgskole/universitet, opptil 4 år | ☐3 | ☐3 |
| Høgskole/universitet, mer enn 4 år | ☐4 | ☐4 |
| Vet ikke | ☐5 | ☐5 |

10. Hva er dine foreldres/foresattes yrkesmessige status? ⇨

*NB: Sett ett kryss for mor / kvinnelig foresatt, og ett for far / mannlig foresatt.*

| | Mor | Far |
|---|---|---|
| I arbeid på heltid | ☐1 | ☐1 |
| I arbeid på deltid | ☐2 | ☐2 |
| Permittert/arbeidsløs | ☐3 | ☐3 |
| Hjemmeværende | ☐4 | ☐4 |
| Annet | ☐5 | ☐5 |

11 Hvordan har familiens økonomi vært *de siste to årene*? ⇨

*NB: Her setter du bare ett kryss.*

- Vi har hatt dårlig råd hele tida ☐1
- Vi har stort sett hatt dårlig råd ☐2
- Vi har verken hatt dårlig råd eller god råd ☐3
- Vi har stort sett hatt god råd ☐4
- Vi har hatt god råd hele tida ☐5

## B. FRITIDSAKTIVITETER

Her er en del aktiviteter som unge mennesker driver med i fritiden. Hvor ofte gjør du hver av disse tingene? *Ett kryss på hver linje.*

| | Aldri 1 | Sjelden 2 | Ca. én dag i uka 3 | 2 - 3 dager i uka 4 | 4 - 7 dager i uka 5 |
|---|---|---|---|---|---|
| 1. Spiller musikkinstrument | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. Hører på musikk | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Leser bøker, magasiner eller aviser | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. Har venner på besøk | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. Røyker | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. Gjør husarbeid eller annet arbeid hjemme | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. Sitter med familien og snakker om ting | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. Er sammen med venner utendørs ( på gata, veien e.l.) | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9. Er på besøk hos venner | ☐ | ☐ | ☐ | ☐ | ☐ |
| 10. Spiser «ute» med venner (på kafé e.l.) | ☐ | ☐ | ☐ | ☐ | ☐ |
| 11. Drar til sentrum for å kikke i butikker | ☐ | ☐ | ☐ | ☐ | ☐ |
| 12. Går på kino, konserter eller fester | ☐ | ☐ | ☐ | ☐ | ☐ |
| 13. Er ute for å danse (f.eks. på diskotek) | ☐ | ☐ | ☐ | ☐ | ☐ |
| 14. Drikker alkohol | ☐ | ☐ | ☐ | ☐ | ☐ |
| 15. Snuser | ☐ | ☐ | ☐ | ☐ | ☐ |

*Husk: Bare ett kryss på hvert spørsmål.*

| Hvor ofte gjør du hver av disse tingene? *Ett kryss på hver linje.* | *Aldri* 1 | *Sjelden* 2 | *Ca. én dag i uka* 3 | *2 - 3 dager i uka* 4 | *4 - 7 dager i uka* 5 |
|---|---|---|---|---|---|
| 16. Deltar i organisert fritidsaktivitet | ☐ | ☐ | ☐ | ☐ | ☐ |
| 17. Spiller dataspill/mobilspill | ☐ | ☐ | ☐ | ☐ | ☐ |
| 18. Er på sosiale medier (f.eks. Instagram, Snapchat) | ☐ | ☐ | ☐ | ☐ | ☐ |
| 19. Er «på nett» for øvrig (f.eks. surfing, streaming, Youtube, e-post, blogger) | ☐ | ☐ | ☐ | ☐ | ☐ |

## C. FYSISK AKTIVITET OG IDRETT

| | *Aldri* 1 | *Sjelden* 2 | *Ca. én dag i uka* 3 | *2-3 dager i uka* 4 | *4-7 dager i uka* 5 |
|---|---|---|---|---|---|
| 1. Hvor mange av dagene i *en vanlig uke* er du så aktiv at du blir andpusten eller svett? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. I løpet av *de fire siste ukene*, hvor ofte deltok du i idrett/ sport eller fysisk aktivitet hardt nok til at du *pustet fort*, *svettet* eller at *hjertet banket fort* i 20 minutter? | ☐ | ☐ | ☐ | ☐ | ☐ |

3. Hvor ofte trener du i hver av disse sammenhengene? ⇨

| | *Aldri* 1 | *Sjelden* 2 | *Ca. én dag i uka* 3 | *2-3 dager i uka* 4 | *4-7 dager i uka* 5 |
|---|---|---|---|---|---|
| 1. Trener/konkurrerer i idrettslag | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. Trener utenom idrettslag | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Trener i treningsstudio | ☐ | ☐ | ☐ | ☐ | ☐ |

4. Hvor ofte trener du på følgende måter (i sesongen)? ⇨

| | *Aldri* 1 | *Sjelden* 2 | *Ca. én dag i uka* 3 | *2-3 dager i uka* 4 | *4-7 dager i uka* 5 |
|---|---|---|---|---|---|
| 1. Dansetrening | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. Går på ski (langrenn) | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Alpinski/snowboard | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. Fotball | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. Håndball | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. Sykler | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. Jogger | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. Fotturer | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9. Trener på andre måter | ☐ | ☐ | ☐ | ☐ | ☐ |

5. Hvor enig eller uenig er du i hvert av disse utsagnene om din egen trening og fysiske aktivitet? ⇨

| | *Svært enig* 1 | *Enig* 2 | *Uenig* 3 | *Svært uenig* 4 |
|---|---|---|---|---|
| 1. Jeg er i svært god form | ☐ | ☐ | ☐ | ☐ |
| 2. Jeg trener ikke | ☐ | ☐ | ☐ | ☐ |
| 3. Jeg trener for å holde meg i god form | ☐ | ☐ | ☐ | ☐ |
| 4. Jeg trener for å være sammen med venner | ☐ | ☐ | ☐ | ☐ |
| 5. Jeg trener for å bli flink i idrett | ☐ | ☐ | ☐ | ☐ |
| 6. Jeg trener når jeg ikke har annet å gjøre | ☐ | ☐ | ☐ | ☐ |
| 7. Jeg er i dårlig form | ☐ | ☐ | ☐ | ☐ |
| 8. Fysisk aktivitet er viktig for helsa mi som voksen | ☐ | ☐ | ☐ | ☐ |
| 9. Vennskap er viktigere enn å vinne i idrett | ☐ | ☐ | ☐ | ☐ |
| 10. Jeg er flink i idrett | ☐ | ☐ | ☐ | ☐ |
| 11. Jeg trener fordi utseendet er viktig for meg | ☐ | ☐ | ☐ | ☐ |

*Husk: Bare ett kryss på hvert spørsmål.*

6. Deltar du, eller har du deltatt tidligere i disse idrettene *i idrettslag*? ⇨

| | *Deltar nå* 1 | *Deltok før, men har slutter* 2 | *Har aldri deltatt* 3 |
|---|---|---|---|
| 1. Håndball | ☐ | ☐ | ☐ |
| 2. Fotball | ☐ | ☐ | ☐ |
| 3. Ski (langrenn og/eller alpint) | ☐ | ☐ | ☐ |
| 4. Annen idrett i idrettslag | ☐ | ☐ | ☐ |

## D. OM HJEMSTEDET DITT

Hvor enig eller uenig er du i disse utsagnene om hjemstedet ditt?
*NB: Hvis du bor på hybel: Tenk på området rundt skolen.*

| | *Svært enig* 1 | *Enig* 2 | *Uenig* 3 | *Svært uenig* 4 |
|---|---|---|---|---|
| 1. Dette er et fint sted for barn å vokse opp | ☐ | ☐ | ☐ | ☐ |
| 2. Fritidstilbudet er viktig for min trivsel | ☐ | ☐ | ☐ | ☐ |
| 3. Dette er et fint sted å bo for unge mennesker som meg | ☐ | ☐ | ☐ | ☐ |
| 4. Det er for få møtesteder for unge mennesker her | ☐ | ☐ | ☐ | ☐ |
| 5. Her sladrer folk om alt mulig | ☐ | ☐ | ☐ | ☐ |
| 6. Det er ikke nok å gjøre for unge mennesker her | ☐ | ☐ | ☐ | ☐ |
| 7. Dette stedet mangler transport for å komme dit jeg ønsker | ☐ | ☐ | ☐ | ☐ |
| 8. Det er ingen ting å gjøre her for unge mennesker | ☐ | ☐ | ☐ | ☐ |
| 9. Det er for lite frihet her på stedet til å være slik en ønsker | ☐ | ☐ | ☐ | ☐ |
| 10. Unge mennesker utsettes for mobbing og angrep her | ☐ | ☐ | ☐ | ☐ |
| 11. Det er vanskelig å være seg selv her | ☐ | ☐ | ☐ | ☐ |
| 12. Ungdomsgjenger er et problem her | ☐ | ☐ | ☐ | ☐ |
| 13. Det er ikke trygt å gå ut om kvelden her | ☐ | ☐ | ☐ | ☐ |
| 14. Mange av mine venner her på stedet drikker alkohol | ☐ | ☐ | ☐ | ☐ |
| 15. Unge mennesker drikker for mye her på stedet | ☐ | ☐ | ☐ | ☐ |
| 16. Jeg har følt press om å bruke narkotika her på stedet | ☐ | ☐ | ☐ | ☐ |
| 17. Jeg har vært nødt til å velge bort fritidsaktiviteter her på stedet av økonomiske grunner | ☐ | ☐ | ☐ | ☐ |

## E. OM SKOLEN

Hvor enig eller uenig er du generelt i disse utsagnene om skolen?
*Husk: Bare ett kryss på hver linje.*

| | *Svært enig* 1 | *Enig* 2 | *Uenig* 3 | *Svært uenig* 4 |
|---|---|---|---|---|
| 1. Jeg trives på skolen | ☐ | ☐ | ☐ | ☐ |
| 2. Jeg jobber hardt på skolen | ☐ | ☐ | ☐ | ☐ |
| 3. Jeg lærer interessante og nyttige ting på skolen | ☐ | ☐ | ☐ | ☐ |
| 4. Lærerne er interesserte og hjelpsomme | ☐ | ☐ | ☐ | ☐ |
| 5. Jeg er glad når jeg kan være borte fra skolen | ☐ | ☐ | ☐ | ☐ |
| 6. Jeg blir lei av lærere som forteller hva jeg skal gjøre | ☐ | ☐ | ☐ | ☐ |
| 7. Jeg syns skolearbeidet er lett | ☐ | ☐ | ☐ | ☐ |
| 8. Jeg har blitt plaget/mobbet av andre elever på skolen | ☐ | ☐ | ☐ | ☐ |

*Husk: Bare ett kryss på hvert spørsmål.*

## F. TRIVSEL

| | | *Svært godt* 1 | *Godt* 2 | *Middels* 3 | *Dårlig* 4 | *Svært dårlig* 5 |
|---|---|---|---|---|---|---|
| 1. | Hvor godt trives du på trening? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. | Hvor godt trives du i idrettskonkurranser? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. | Hvor godt trives du når du trener hardt fysisk? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. | Hvor godt trives du når du er hjemme? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. | Hvor godt trives du i teoritimer på skolen? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. | Hvor godt trives du i kroppsøvingstimer på skolen? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. | Hvor godt trives du i friminuttene på skolen? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. | Hvor godt trives du i løpet av en vanlig dag? | ☐ | ☐ | ☐ | ☐ | ☐ |

## G. DINE TANKER OM FRAMTIDEN

Hvor enig eller uenig er du i disse utsagnene om tiden etter at du er ferdig på skolen?

| | | *Svært enig* 1 | *Enig* 2 | *Uenig* 3 | *Svært uenig* 4 |
|---|---|---|---|---|---|
| 1. | Jeg ønsker å bo i dette området i framtiden | ☐ | ☐ | ☐ | ☐ |
| 2. | Jeg ønsker å flytte herfra for noen år, og så flytte tilbake hit | ☐ | ☐ | ☐ | ☐ |
| 3. | Jeg ønsker å flytte herfra, og aldri flytte tilbake | ☐ | ☐ | ☐ | ☐ |
| 4. | Jeg ønsker å ta vare på miljøet | ☐ | ☐ | ☐ | ☐ |
| 5. | Jeg ønsker å studere etter videregående skole | ☐ | ☐ | ☐ | ☐ |
| 6. | Jeg ønsker å være med på å forbedre miljøet der jeg bor | ☐ | ☐ | ☐ | ☐ |
| 7. | Framtiden ser bra ut for unge mennesker her på stedet | ☐ | ☐ | ☐ | ☐ |
| 8. | Jeg vil begynne å jobbe så fort jeg kan etter skolen | ☐ | ☐ | ☐ | ☐ |
| 9. | Det vil bli vanskelig for meg å finne en passende jobb her | ☐ | ☐ | ☐ | ☐ |

## H. DU OG HELSA DI

| | | *Svært dårlig* 1 | *Dårlig* 2 | *Verken god eller dårlig* 3 | *God* 4 | *Svært god* 5 |
|---|---|---|---|---|---|---|
| 1. | Hvordan har helsa di vært *det siste året*? ⇨ | ☐ | ☐ | ☐ | ☐ | ☐ |

2. Hvor får du viktig informasjon om helse? ⇨ *NB: Her kan du sette flere kryss!*

| | | |
|---|---|---|
| 1. Helsesøster ☐ | 4. Foresatte ☐ | 7. TV ☐ |
| 2. Lege ☐ | 5. Venner ☐ | 8. Ukeblader ☐ |
| 3. Lærere ☐ | 6. Internett ☐ | 9. Annet ☐ |

3. Hvor ofte gjør du følgende? ⇨

| | *Aldri* 1 | *Sjelden* 2 | *Én dag i uka* 3 | *2-4 dager i uka* 4 | *5-7 dager i uka* 5 |
|---|---|---|---|---|---|
| 1. Røyker | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. Bruker snus | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Drikker alkohol | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. Spiser frokost | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. Spiser skolemåltid | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. Spiser middag | ☐ | ☐ | ☐ | ☐ | ☐ |



*Før du fortsetter: Kontroller at du ikke har glemt noe på denne sida.*

*Husk: Bare ett kryss på hvert spørsmål.*

4. Her er fem utsagn om tilfredshet med livet som helhet. Hvor godt eller dårlig stemmer hvert utsagn for deg og ditt liv?

| | *Stemmer dårlig* 1 | 2 | 3 | 4 | 5 | 6 | *Stemmer perfekt* 7 |
|---|---|---|---|---|---|---|---|
| 1. På de fleste måter er livet mitt nær idealet mitt | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. Forholdene i livet mitt er utmerket | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Jeg er fornøyd med livet mitt | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. Så langt har jeg oppnådd de viktige tingene jeg ønsker i livet | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. Hvis jeg kunne leve livet på nytt, ville jeg nesten ikke forandret noe | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

## I. «LYKKETERMOMETERET»

Hvor lykkelig/glad eller ulykkelig har du vært i løpet av den siste uken?

*Kryss av i bare én av boksene.*

| | |
|---|---|
| Ekstremt lykkelig (Følelse av begeistring) ⇨ ☐ | 10 |
| Veldig lykkelig (Føler meg virkelig bra og oppstemt) ⇨ ☐ | 9 |
| Ganske lykkelig (Føler meg bra) ⇨ ☐ | 8 |
| Nokså lykkelig (Føler meg rimelig bra og munter) ⇨ ☐ | 7 |
| Litt lykkelig (Akkurat litt mere enn nøytral) ⇨ ☐ | 6 |
| Nøytral/midt i mellom ⇨ ☐ | 5 |
| Litt ulykkelig (Akkurat litt mere enn nøytral) ⇨ ☐ | 4 |
| Nokså ulykkelig (Føler meg litt «nedfor») ⇨ ☐ | 3 |
| Ganske ulykkelig (Føler meg ganske deprimert) ⇨ ☐ | 2 |
| Veldig ulykkelig (Føler meg veldig deprimert) ⇨ ☐ | 1 |
| Ekstremt ulykkelig (Totalt deprimert og «nedfor») ⇨ ☐ | 0 |

## J. HELSEPLAGER

Har du hatt noen av disse plagene i løpet av *de 4 siste ukene*?

| | *Ikke plaget* 1 | *Litt plaget* 2 | *Nokså plaget* 3 | *Svært plaget* 4 | *Ikke aktuelt* 5 |
|---|---|---|---|---|---|
| 1. Astma eller pipende bryst | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. Forkjølelse eller influensa | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Følt deg nervøs, bekymret eller redd | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. Hodepine eller migrene | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. Smerter i armene, beina eller ryggen | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. Følt deg ensom | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. Svimmelhetsanfall eller har besvimt | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. Magesmerter/vondt i magen | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9. Følt deg trist, ulykkelig eller nedfor | ☐ | ☐ | ☐ | ☐ | ☐ |
| 10. Allergi | ☐ | ☐ | ☐ | ☐ | ☐ |
| 11. Vært irritabel eller i dårlig humør | ☐ | ☐ | ☐ | ☐ | ☐ |
| 12. Kviser, utslett eller andre hudproblemer | ☐ | ☐ | ☐ | ☐ | ☐ |

*Husk: Bare ett kryss på hvert spørsmål.*

## K. STRESS

1. Her er en liste med ting eller situasjoner du kanskje opplever som stressende. Hvor stressende har hver av disse tingene eller situasjonene vært for deg i løpet av det siste året?
*NB: Hvis det er noe du ikke har opplevd, krysser du i rute nr. 1 (Ikke stressende).*

| Hvor stressende er (det)… | *Ikke stressende* 1 | *Litt stressende* 2 | *Moderat stressende* 3 | *Ganske stressende* 4 | *Svært stressende* 5 |
|---|---|---|---|---|---|
| 1. … uenigheter mellom deg og faren din? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. … å stå opp tidlig om morgenen? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. … å være nødt til å lære ting du ikke forstår? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. … å ha lærere som forventer for mye av deg? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. … å bli ertet? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. … å ha vanskeligheter med noen skolefag? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. … å følge regler du er uenig i hjemme? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. … å måtte lese ting du ikke er interessert i? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9. … å bli oversett eller avvist av en person du er interessert i? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 10. … å ikke ha nok tid til å ha det gøy? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 11. … uenigheter med søsknene dine? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 12. … å ikke ha nok tid til å drive med fritidsaktiviteter? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 13. … å ha for mye hjemmelekser? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 14. … å ikke få nok tilbakemelding på skolearbeidet tidsnok til at det er hjelp i det? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 15. … å få forholdet til kjæresten til å fungere? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 16. … å bli nedvurdert av vennene dine? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 17. … uenigheter mellom foreldrene dine? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 18. … å ha for mye fravær fra skolen? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 19. … hvordan du ser ut? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 20. … uenigheter mellom deg og mora di? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 21. … å gå på skolen? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 22. … å ikke ha nok tid til kjæresten din? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 23. … lærere som erter deg? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 24. … å adlyde regler du er uenig i på skolen? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 25. … å ikke bli hørt på av lærere? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 26. … å ikke komme overens med kjæresten din? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 27. … mangel på respekt fra lærere? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 28. … uenigheter mellom deg og dine venner? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 29. … å ikke komme overens med lærerne dine? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 30. … å slå opp med kjæresten? | ☐ | ☐ | ☐ | ☐ | ☐ |

## L. PSYKISK VELVÆRE

Her er noen utsagn om følelser og tanker. Vennligst kryss av for det som best beskriver din opplevelse *de siste 2 ukene*.

| | Ikke i det hele tatt 1 | Sjelden 2 | En del av tiden 3 | Ofte 4 | Hele tiden 5 |
|---|---|---|---|---|---|
| 1. Jeg har vært optimistisk med hensyn til fremtiden | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. Jeg har følt meg nyttig | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Jeg har følt meg avslappet | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. Jeg har følt interesse for andre mennesker | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. Jeg har hatt masse energi | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. Jeg har håndtert problemer godt | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. Jeg har tenkt klart | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. Jeg har vært fornøyd med meg selv | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9. Jeg har følt nærhet til andre mennesker | ☐ | ☐ | ☐ | ☐ | ☐ |
| 10. Jeg har følt meg selvsikker | ☐ | ☐ | ☐ | ☐ | ☐ |
| 11. Jeg har vært i stand til å ta beslutninger | ☐ | ☐ | ☐ | ☐ | ☐ |
| 12. Jeg har følt meg elsket | ☐ | ☐ | ☐ | ☐ | ☐ |
| 13. Jeg har vært interessert i nye ting | ☐ | ☐ | ☐ | ☐ | ☐ |
| 14. Jeg har vært i godt humør | ☐ | ☐ | ☐ | ☐ | ☐ |

## M. DINE FØLELSER AKKURAT NÅ

Vennligst kryss av for det som best beskriver hvordan du føler deg *akkurat nå, i dette øyeblikket.*

| | Ikke i det hele tatt 1 | Sjelden 2 | En del av tiden 3 | Ofte 4 | Hele tiden 5 |
|---|---|---|---|---|---|
| 1. Jeg føler meg rolig | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. Jeg føler meg trygg | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Jeg er anspent | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. Jeg føler at jeg er under press | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. Jeg føler meg vel | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. Jeg føler meg oppskaket | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. Jeg er bekymret for at noe uheldig kan skje | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. Jeg er fornøyd | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9. Jeg føler meg skremt | ☐ | ☐ | ☐ | ☐ | ☐ |
| 10. Jeg føler meg bra | ☐ | ☐ | ☐ | ☐ | ☐ |

Husk: Bare ett kryss på hvert spørsmål.

| | Ikke i det hele tatt 1 | Sjelden 2 | En del av tiden 3 | Ofte 4 | Hele tiden 5 |
|---|---|---|---|---|---|
| 11 Jeg har selvtillit | ☐ | ☐ | ☐ | ☐ | ☐ |
| 12. Jeg føler meg nervøs | ☐ | ☐ | ☐ | ☐ | ☐ |
| 13. Jeg er skvetten | ☐ | ☐ | ☐ | ☐ | ☐ |
| 14. Jeg føler meg ubesluttsom | ☐ | ☐ | ☐ | ☐ | ☐ |
| 15. Jeg er avslappet | ☐ | ☐ | ☐ | ☐ | ☐ |
| 16. Jeg føler meg tilfreds | ☐ | ☐ | ☐ | ☐ | ☐ |
| 17. Jeg er bekymret | ☐ | ☐ | ☐ | ☐ | ☐ |
| 18. Jeg føler meg forvirret | ☐ | ☐ | ☐ | ☐ | ☐ |
| 19. Jeg føler meg stabil | ☐ | ☐ | ☐ | ☐ | ☐ |
| 20. Jeg føler at jeg har det behagelig | ☐ | ☐ | ☐ | ☐ | ☐ |

## N. DINE FØLELSER DEN SISTE UKA

Vennligst kryss av for det som best beskriver hvordan du har følt deg *den siste uka, inkludert i dag.*

| | Aldri 1 | Nesten aldri 2 | Noen ganger 3 | Veldig ofte 4 | Alltid 5 |
|---|---|---|---|---|---|
| 1. Jeg har følt meg trist eller ulykkelig | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. Jeg har følt meg på gråten | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Jeg har følt skyld uten å vite hvorfor | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. Jeg har mistet interessen for ting som har vært viktige for meg før | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. Jeg har ikke likt aktiviteter som jeg gjorde 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 | ☐ | ☐ | ☐ | ☐ | ☐ |
| 14. Jeg har følt at det krever større innsats å gjøre ting | ☐ | ☐ | ☐ | ☐ | ☐ |
| 15. Jeg har følt meg trøtt eller har hatt veldig lite energi | ☐ | ☐ | ☐ | ☐ | ☐ |

*Husk: Bare ett kryss på hvert spørsmål.*

## O. DIN SELVFØLELSE

Hvor enig eller uenig er du i hvert av disse utsagnene om din egen selvfølelse?

| | | Sterkt uenig 1 | Uenig 2 | Enig 3 | Sterkt enig 4 |
|---|---|---|---|---|---|
| 1. | I det store og hele er jeg fornøyd med meg selv | ☐ | ☐ | ☐ | ☐ |
| 2. | Av og til synes jeg ikke at jeg er god i noe i det hele tatt | ☐ | ☐ | ☐ | ☐ |
| 3. | Jeg føler jeg har flere gode egenskaper | ☐ | ☐ | ☐ | ☐ |
| 4. | Jeg er i stand til å gjøre ting like bra som de fleste andre folk | ☐ | ☐ | ☐ | ☐ |
| 5. | Jeg føler at jeg ikke har mye å være stolt av | ☐ | ☐ | ☐ | ☐ |
| 6. | Til tider føler jeg meg absolutt ubrukelig | ☐ | ☐ | ☐ | ☐ |
| 7. | Jeg føler at jeg er en person som er verdt noe, i alle fall på lik linje med andre | ☐ | ☐ | ☐ | ☐ |
| 8. | Jeg skulle ønske jeg hadde mer selvrespekt | ☐ | ☐ | ☐ | ☐ |
| 9. | Alt i alt har jeg en tendens til å føle meg mislykket | ☐ | ☐ | ☐ | ☐ |
| 10. | Jeg har en positiv holdning til meg selv | ☐ | ☐ | ☐ | ☐ |

## P. OPPLEVELSE AV SAMMENHENG

Her er en serie med spørsmål som omhandler ulike sider ved livet vårt. Vennligst kryss av for det tallet som best uttrykker det som passer for deg.

1. Opplever du at du ikke bryr deg om det som skjer i omgivelsene dine?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|---|---|---|---|---|---|---|---|---|
| Veldig sjelden eller aldri | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | Veldig ofte |

2. Har du opplevd at du er blitt overrasket over oppførselen til personer du trodde du kjente godt?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|---|---|---|---|---|---|---|---|---|
| Det har aldri hendt | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | Det hender alltid |

3. Har det hendt at personer du stoler på har skuffet deg?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|---|---|---|---|---|---|---|---|---|
| Det har aldri hendt | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | Det hender alltid |

4. Inntil nå har livet mitt …

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|---|---|---|---|---|---|---|---|---|
| vært helt uten mål og mening | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | hatt mål og mening |

5. Føler du deg urettferdig behandlet?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|---|---|---|---|---|---|---|---|---|
| Veldig ofte | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | Veldig sjelden eller aldri |

6. Opplever du ofte at du er i en uvant situasjon og at du er usikker på hva du skal gjøre?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|---|---|---|---|---|---|---|---|---|
| Veldig ofte | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | Veldig sjelden eller aldri |

7. Er dine dagligdagse aktiviteter en kilde til …

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|---|---|---|---|---|---|---|---|---|
| glede og tilfredsstillelse? | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | smerte og kjedsomhet? |

8. Har du veldig motstridende tanker og følelser?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|---|---|---|---|---|---|---|---|---|
| Veldig ofte | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | Veldig sjelden eller aldri |

9. Skjer det at du har følelser som du helst ikke vil føle?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|---|---|---|---|---|---|---|---|---|
| Veldig ofte | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | Veldig sjelden eller aldri |

10. Alle mennesker vil kunne føle seg som tapere iblant. Hvor ofte føler du deg slik?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|---|---|---|---|---|---|---|---|---|
| Aldri | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | Veldig ofte |

11. Hvor ofte opplever du at du over- eller undervurderer betydningen av noe som skjer?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|---|---|---|---|---|---|---|---|---|
| Du over- eller undervurderer det som skjer | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | Du ser saken i rett sammenheng |

12. Hvor ofte føler du at de tingene du gjør i hverdagen er meningsløse?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|---|---|---|---|---|---|---|---|---|
| Veldig ofte | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | Veldig sjelden eller aldri |

13. Hvor ofte har du følelser du ikke er sikker på at du kan kontrollere?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|---|---|---|---|---|---|---|---|---|
| Veldig ofte | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | Veldig sjelden eller aldri |

## Q. RESSURSER OG MESTRING

Hvor enig eller uenig er du i hvert av disse utsagnene om hvordan du har hatt det *den siste måneden*, og om hvordan du har tenkt og følt om deg selv og om mennesker omkring deg som er viktige for deg.

| | *Helt enig* 1 | *Litt enig* 2 | *Middels* 3 | *Litt uenig* 4 | *Helt uenig* 5 |
|---|---|---|---|---|---|
| 1. Jeg kommer i mål dersom jeg står på | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. Jeg fungerer best når jeg lager meg klare mål | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Jeg har noen venner/familiemedlemmer som pleier å oppmuntre meg | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. Jeg er fornøyd med livet mitt til nå | ☐ | ☐ | ☐ | ☐ | ☐ |
| 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 | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. Jeg vet hvordan jeg skal nå målene mine | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. Jeg legger alltid en plan før jeg begynner med noe nytt | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9. Vennene mine holder alltid sammen | ☐ | ☐ | ☐ | ☐ | ☐ |
| 10. Jeg trives godt i familien min | ☐ | ☐ | ☐ | ☐ | ☐ |
| 11. Jeg har lett for å finne nye venner | ☐ | ☐ | ☐ | ☐ | ☐ |
| 12. Når det er umulig for meg å forandre på ting, slutter jeg å gruble på dem | ☐ | ☐ | ☐ | ☐ | ☐ |

*Husk: Bare ett kryss på hvert spørsmål.*

| | Helt enig 1 | Litt enig 2 | Middels 3 | Litt uenig 4 | Helt uenig 5 |
|---|---|---|---|---|---|
| 13. Jeg er flink til å organisere tiden min | ☐ | ☐ | ☐ | ☐ | ☐ |
| 14. Jeg har noen nære venner/familiemedlemmer som virkelig bryr seg om meg | ☐ | ☐ | ☐ | ☐ | ☐ |
| 15. I familien min er vi enig om det meste | ☐ | ☐ | ☐ | ☐ | ☐ |
| 16. Jeg er flink til å snakke med nye folk | ☐ | ☐ | ☐ | ☐ | ☐ |
| 17. Jeg føler jeg er dyktig | ☐ | ☐ | ☐ | ☐ | ☐ |
| 18. I familien min har vi regler som forenkler hverdagen | ☐ | ☐ | ☐ | ☐ | ☐ |
| 19. Jeg har alltid noen som kan hjelpe meg når jeg trenger det | ☐ | ☐ | ☐ | ☐ | ☐ |
| 20. Når jeg skal velge noe vet jeg oftest hva som blir riktig for meg | ☐ | ☐ | ☐ | ☐ | ☐ |
| 21. Familien min ser positivt på tiden framover selv om det skjer noe veldig leit | ☐ | ☐ | ☐ | ☐ | ☐ |
| 22. Jeg finner alltid noe artig å snakke om | ☐ | ☐ | ☐ | ☐ | ☐ |
| 23. Min tro på meg selv får meg gjennom vanskelige perioder | ☐ | ☐ | ☐ | ☐ | ☐ |
| 24. I familien min støtter vi opp om hverandre | ☐ | ☐ | ☐ | ☐ | ☐ |
| 25. Jeg finner alltid på noe trøstende å si til andre som er lei seg | ☐ | ☐ | ☐ | ☐ | ☐ |
| 26. I motgang har jeg en tendens til å finne noe bra jeg kan vokse på | ☐ | ☐ | ☐ | ☐ | ☐ |
| 27. I familien min liker vi å finne på ting sammen | ☐ | ☐ | ☐ | ☐ | ☐ |
| 28. Jeg har noen nære venner/familiemedlemmer som setter pris på egenskapene mine | ☐ | ☐ | ☐ | ☐ | ☐ |

## R. MESTRINGSTRO

| | Helt galt 1 | Nokså galt 2 | Nokså riktig 3 | Helt riktig 4 |
|---|---|---|---|---|
| 1. Jeg klarer alltid å løse vanskelige problemer hvis jeg prøver hardt nok | ☐ | ☐ | ☐ | ☐ |
| 2. Hvis noen motarbeider meg, så kan jeg finne måter og veier for å få det som jeg vil | ☐ | ☐ | ☐ | ☐ |
| 3. Det er lett for meg å holde fast på planene mine og nå målene mine | ☐ | ☐ | ☐ | ☐ |
| 4. Jeg føler meg trygg på at jeg ville kunne takle uventede hendelser på en effektiv måte | ☐ | ☐ | ☐ | ☐ |
| 5. Takket være ressursene mine så vet jeg hvordan jeg skal takle uventede situasjoner | ☐ | ☐ | ☐ | ☐ |
| 6. Jeg kan løse de fleste problemer hvis jeg går tilstrekkelig inn for det | ☐ | ☐ | ☐ | ☐ |
| 7. Jeg beholder roen når jeg møter vanskeligheter fordi jeg stoler på mestringsevnen min | ☐ | ☐ | ☐ | ☐ |
| 8. Når jeg møter et problem, så finner jeg vanligvis flere løsninger på det | ☐ | ☐ | ☐ | ☐ |
| 9. Hvis jeg er i knipe, så finner jeg vanligvis en løsning | ☐ | ☐ | ☐ | ☐ |
| 10. Samme hva som hender, så er jeg vanligvis i stand til å takle det | ☐ | ☐ | ☐ | ☐ |



*Takk for at du ville svare på spørsmålene!*

## Appendix B: Approval by the Regional Committees for Medical Research Ethics

REK
REGIONALE KOMITEER FOR MEDISINSK OG HELSEFAGLIG FORSKNINGSETIKK

| Region: | Saksbehandler: | Telefon: | Vår dato: | Vår referanse: |
|---|---|---|---|---|
| REK midt | Øystein Lundestad | 73597507 | 11.04.2017 | 2016/1165/REK midt |
| | | | Deres dato: | Deres referanse: |
| | | | 01.03.2017 | |

Vår referanse må oppgis ved alle henvendelser

Geir Arild Espnes
NTNU

**2016/1165 Oppvekst i bygder 2016**

**Forskningsansvarlig:** NTNU
**Prosjektleder:** Geir Arild Espnes

Vi viser til søknad om prosjektendring datert 01.03.2017 for ovennevnte forskningsprosjekt. Søknaden om prosjektendring er behandlet på fullmakt av REK midts sekretariat, med hjemmel i helseforskningsloven § 11 og forskrift om behandling av etikk og redelighet i forskning § 10.

**Opprinnelig prosjektomtale**
*Målet med undersøkelsen" Oppvekst i bygder 2016» er å følge opp tidligere datainnsamlinger fra 1996, 2001, 2006 og 2011 om oppvekst,- aktivitet- og helsevariabler blant ungdom 13-19 år i seks bygdekommuner i Sør-Trøndelag. Det er viktig for planlegging og implementering av forebyggende – og helsefremmende arbeid blant ungdom å vite mer om status og utvikling på disse atferds-og helsevariablene. Målet med undersøkelsen er å vitenskapelig å framskaffe kunnskap om ungdoms helse, oppvekst og trivsel.*

**Søknad om prosjektendring**
Det vises til innsending av søknad om prosjektendring 1. mars. Ettersendte dokumenter (reviderte informasjonsskriv og protokoll) ble mottatt på mail 30. mars (vår ref. 2016/1165-5). Det søkes her om følgende endringer:

1. Endring av kontaktperson for forskningsansvarlig institusjon som følge av instituttsammenslåing;
2. Tre masteroppgaver basert på materialet.

**Vurdering**
REK midt har vurdert søknad om prosjektendring. Komiteen har mottatt reviderte informasjonsskriv og endret prosjektbeskrivelse for én av studentoppgavene hvor det var usikkert om framstillinga ville være personidentifiserende. Det oppgis nå at materialet kun vil bli sammenstilt og presentert på gruppenivå. Komiteen har ingen innvendinger mot denne prosedyren, som bidrar til å ivareta deltakernes anonymitet.

Komiteen har ingen forskningsetiske innvendinger mot endringene av prosjektet. Oppgavenes formål vurderes som klart innenfor hovedprosjektets formål og det samtykke som er gitt til bruk av opplysningene. Under forutsetning av at vilkårene nedenfor tas til følge, er hensynet til deltakernes velferd og integritet fremdeles godt ivaretatt.

**Vilkår for godkjenning**

1. Godkjenninga er gitt under forutsetning av at prosjektet gjennomføres slik det er beskrevet i søknaden, protokollen og prosjektendringene datert 1. mars 2017. Prosjektet må også gjennomføres

Besøksadresse:
Det medisinske fakultet
Medisinsk teknisk forskningssenter 7489
Trondheim

Telefon: 73597511
E-post: rek-midt@mh.ntnu.no
Web: http://helseforskning.etikkom.no/

iht. tidligere vedtak i saken og de bestemmelser som følger av helseforskningsloven (hfl.) med forskrifter.

2. Komiteen forutsetter at ingen personidentifiserbare opplysninger kan framkomme ved publisering eller annen offentliggjøring.

**Vedtak**
Regional komité for medisinsk og helsefaglig forskningsetikk Midt-Norge godkjenner søknad om prosjektendring med de vilkår som er gitt.

**Klageadgang**
Du kan klage på komiteens vedtak, jf. forvaltningsloven § 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

Hilde Eikemo
Sekretariatsleder, REK midt

Øystein Lundestad
Rådgiver

**Kopi til:** *postmottak@svt.ntnu.no; rek-ism@mh.ntnu.no; rek-midt@mh.ntnu.no*