

**Introduction to the Bergen Social Relationships Scale (BSRS):
A short questionnaire for the measurement of psychosocial stress in
epidemiological studies (update 2018)**

Maurice B Mittelmark

maurice.mittelmark@uib.no

Department of Health Promotion and Development, Faculty of Psychology,
University of Bergen, Christiesgt. 13, 5020 Bergen, Norway

The assessment of stress in epidemiological studies is challenging. Stress has many conceptualisations: chronic versus acute, objective versus subjective, stimulus versus response, and individual versus organisational/societal levels. The measurement of psychosocial stress may focus on physiological activation, the measurement of stressors, or the subjective stress experience. Measurement may be guided by theory, but may just as well not. Kopp, et al's (2010) overview of measures of psychosocial stress in epidemiological research focuses on demonstrably-reliable instruments "identifying predictors of health status at the population level and ... providing useful information about the psychosocial mechanisms by which stressors, perceived stress, and stress reactions might lead to deterioration of health" (ibid, p. 212).

Among the instruments reviewed by Kopp, et al (2010) is the Bergen Social Relationships Scale (BSRS), a six-item scale that has been used in English-language published studies in Norway (Aanes, et al., 2009, 2010, 2011), Romania (Bancila, Mittelmark and Hetland, 2006, Bancila and Mittelmark, 2007, 2009), Russia (Bancila, et al, 2009), the United States (Murdock, 2013) and Pakistan (Nazir, 2013). Research with the BSRS in Thailand and in Denmark has yet to be published. A number of BSRS studies published in Hungarian are also in the literature (Susánszky, et al., 2010; Ádám, 2010, Clarke, 2013; Kovacs, et al., 2013).

The BSRS measures psychological stress defined as a "transactional, cognitive process involving appraisal and not completely satisfactory coping, to resolve dissonance among cognitions about a significant others(s)" (Mittelmark, et al, 2004). The theoretical

underpinning of the BSRS is cognitive dissonance theory, and six types of social situations that could be seriously stressful to any person regardless of age, sex, culture and health status (Mittelmark, 1999):

- The 'helpless bystander' psychological situation is one in which a person is aware of a serious problem in the life of a significant other, wants to help, but feels unable to do so or feels unwelcome to assist.
- The 'inept support' situation is one in which another's genuine efforts to support one are perceived as unwanted or harmful.
- The 'performance demand' situation is one in which one's efforts seems not to meet the expectations of a significant other.
- The 'role conflict' situation is that is which a person's multiple social roles and obligations are felt to be too demanding.
- The 'social conflict' situation' is one in which there is incongruence in social regard in one's near social network.
- The 'criticism' situation in which actions by others in one's near social network as perceived as misdeeds.

Questionnaire development and testing research based on the definition, theory and prototypical psychosocial situations just mentioned led to the BRSR (Mittelmark, et al., 2004):

Instructions: Think about everyone (children, parents, siblings, spouse or significant other, neighbours, friends, colleagues and others you know) while you answer the following:

- There are people in my life whom I care about, but who dislike one another'
- There is a person in my life who needs my help, but whom I don't know how to help'
- There is an important person in my life who wants to support me, but who hurts my feelings instead'
- There is a person whom I have to be with almost daily who often henpecks me'
- There are people who make my life difficult because they expect too much care and support from me'
- There is a person I care about who expects more of me than I can manage'.

(Response alternatives: describes me very well, describes me quite well, does not describe very well, does not describe me at all').

The BSRS was developed in Norwegian and details of its translation into English, Romanian, Russian, and Urdu are published (Bancila and Mittelmark, 2009; Murdock, 2013; Nazir, 2013). The BSRS has been used with adolescents in Norway (Aanes, 2005) and in Romania (Bancila and Mittelmark, 2005), with young adults at university (Murdock, 2013), and with working age adults and retired persons (Mittelmark, et al., 2004; Aanes, et al., 2009, 2010, 2011; Bancila, et al., 2006, 2007, 2009).

The main empirical findings on the relationship between the BSRS and various health indicators, and some psychometric studies, are presented in the annotated reference list. The annotations are the published abstracts; not all references are annotated.

References

Aanes, M.M. (2005). Chronic social stress and depressive symptoms in adolescents. Research Centre for Health promotion Report Number 5, 2005.06-21. ISBN-10 82-7669-108-0, <http://bora.uib.no/handle/1956/2525>.

The participants in this cross-sectional study were Romanian students in secondary and high schools in Bucharest. The data were collected with the assistance of the Youth to Youth Foundation of Romania. The study was conducted during February/March 2002. The sample frame of the survey was all students in all secondary and high schools in Bucharest. In each of eight randomly selected schools, classes were randomly selected resulting in a study sample of 728 students. The questionnaires were filled out during a regular school hour, giving the students adequate time to answer the questions (n=630). The questionnaire contained the Subjective Health Complaints Scale (SHCS) as a measure of psychological distress, the Bergen Social Relationships Scale (BSRS) and the (adapted) Bergen Worries Scale (BWS-C) as measures of stress, and the General Self-efficacy (GSES) and the Social Self-efficacy (SSES) scales as measures of individual coping resources. In addition, the questionnaire contained a number of single-items designed to measure social support. The results of the study showed that the prevalence of chronic social stress among adolescents in the sample was high; 66% of girls and 57% of boys reported three or more stressors. This is higher than similar figures reported for Norwegian adults, but largely in line with results found for Romanian adults in previous studies. The results supported hypothesis 1; girls reported higher levels of both depressive symptoms and social stress, and the effects from social stress on depressive symptoms were larger for girls than for boys. Hypothesis 2 was also largely supported, there was a significant relationship between chronic social stress and depressive symptoms. This result was particularly clear for girls, for boys the relationship between chronic social stress and depressive symptoms was weaker, and only significant in one of the regression models of the study. Hypothesis 3 found strong support in the study; personal worries were found to be significantly and strongly related to depressive symptoms for both girls and boys. Hypothesis 4 was only partially supported. Most of the social support items

did not show a significant relationship to depressive symptoms, with the exception of 'perceived availability of a confidant', which was significantly related to depressive symptoms for boys. Social self-efficacy was significantly related to depressive symptoms for girls but not for boys. General self-efficacy was not significantly related to depressive symptoms for either gender.

Aanes, M. M., Mittelmark, M. B., & Hetland, J. (2009). The experience of loneliness: Main and interactive effects of interpersonal stress, social support and positive affect. *International Journal of Mental Health Promotion*, 11(4), 25-33.

Chronic interpersonal stress is significantly related to psychological distress, loneliness being a critical mediating factor, so alleviating loneliness could reduce psychological distress even in the face of chronic interpersonal stress. It is plausible that positive affect and social support may moderate chronic interpersonal stress-loneliness, as well as having direct effects on loneliness. If so, health promotion interventions to raise positive affect and social support for people living with chronic interpersonal stress should be prioritised. In a community-based sample of 3733 Norwegian adults, direct and moderating effects of positive affect and social support were explored. Chronic interpersonal stress, loneliness, positive affect and social support were significantly interrelated. Positive affect and social support did not substantially moderate the chronic interpersonal stress-loneliness relationship. Together, chronic interpersonal stress, positive affect and social support accounted for 41% of the variance in loneliness. Thus chronic interpersonal stress, positive affect and social support are strong predictors of loneliness. Interventions to increase positive affect and social support may decrease loneliness due to direct effects, but cannot be expected to moderate the chronic interpersonal stress-loneliness relationship.

Aanes, M. M., Mittelmark, M. B., & Hetland, J. (2010). Interpersonal stress and poor health. *European Psychologist*.

This paper investigated whether the lack of social connectedness, as measured by the subjective feeling of loneliness, mediates the well-known relationship between interpersonal stress and psychological distress. Furthermore, a relationship between interpersonal stress and somatic symptoms was hypothesized. The study sample included 3,268 women and 3,220 men in Western Norway. The main findings were that interpersonal stress was significantly related to psychological distress as well as to somatic symptoms, both directly and indirectly via paths mediated by loneliness. The size of the indirect effects varied, suggesting that the importance of loneliness as a possible mediator differs for depressive symptoms, anxiety symptoms, and somatic symptoms. In the case of depressive symptoms, more than 75% of the total effect was mediated through loneliness, while in the case of somatic symptoms just over 40% of the total effect was mediated through loneliness. This study supports the hypotheses that social connectedness mediates a relationship between interpersonal stress and psychological distress. The study also provides the first link between interpersonal stress, as measured by the Bergen Social Relationships Scale, and somatic symptoms, extending earlier research on the relationship between interpersonal stress and psychological distress.

Aanes, M. M., Hetland, J., Pallesen, S., & Mittelmark, M. B. (2011). Does loneliness mediate the stress-sleep quality relation? The Hordaland Health Study. *International Psychogeriatrics*, 23(6), 994.

Background: *Sleep problems are common in the general population. A strong association between stress due to inadequate social relationships or loneliness and sleep problems has been found. This paper aims to investigate stress in close social relationships in relation to disrupted sleep patterns in middle-aged and older adults. In addition, in exploring the underlying processes involved in poor social interactions, loneliness is assumed to be a mediator in the stress-sleep quality relation.*

Methods: *Data from a community sample of 7074 Norwegian middle-aged and older adults in the Hordaland Health Study (HUSK) were used to examine the mediating role of loneliness.*

Results: *A significant association between interpersonal stress and both nocturnal sleep problems and daytime sleepiness was found in both age groups. This relation was mediated by loneliness (indirect path) as well as effected by a direct path (RMSEA = 0.051; CFI = 0.93). The size of the indirect effect varied with age. Nocturnal sleep problems were fully mediated by loneliness in the older group, while 74% of the total effect was mediated through loneliness in the middle-aged group. For daytime sleepiness, a partial mediation of 36% and 40% was observed for the two groups respectively.*

Conclusions: *The mediation effects found in this study indicate that the wider social aspects of an individual's life should be taken into account when planning interventions for improving sleep quality in the elderly.*

Ádám, S., Cserhádi, Z., Balog, P., & Kopp, M. (2010). Gender differences in the level and prevalence of stress and psycho-social well-being. *Mentálhigiéné és Pszichoszomatika*, 11(4), 277-296.

Background: *Previous studies have shown that Hungarian women assume more roles than men (mother, spouse, breadwinner), which may lead to greater stress and negative health outcomes. Objective: To explore gender differences in psycho-social stressors, in the level and prevalence of stress, and its potential consequences.*

Methods: *Cross-sectional study of 4527 people using a national representative sample obtained in 2006 (Hungarostudy 2006). Descriptive statistics (mean, SD, frequency) were used to explore the prevalence and level of stressors and their potential consequences. Gender differences in the level and prevalence of stress and health outcomes were measured using independent sample t-tests and chi-square tests, respectively. Results: Women experienced significantly higher level of stressors compared to men and reported significantly higher level of work-family conflict, marital stress, social stress, overcommitment, and significantly lower level of work control than men. Upon exploring the potential consequences of stress, women reported significantly lower level of general well-being but higher level of life meaning*

than men. Men reported significantly higher level of hostility compared to women. Conclusions: Our results suggest that gender differences in psycho-social well-being may be attributed to gender-specific differences in stressors and consequent stress. These results may be useful for the development of organizational policies, which aim at reducing the high stress levels and work-family conflict among women and may therefore improve their quality of life.

Bancila, D., & Mittelmark, M. B. (2005). Specificity in the relationships between stressors and depressed mood among adolescents: The roles of gender and self-efficacy. *International Journal of Mental Health Promotion*, 7(2), 4-14.

The study's aim was to test for hypothesised specificity in the relationships of stressors (interpersonal stress and worries about daily living) with depressed mood among Romanian adolescents. Six hundred and thirty adolescents in grades 7, 9 and 11 in Bucharest schools participated. Structural equation models assessed the degree to which effects of stressors on depressed mood were mediated through social support and self-efficacy, and moderated by gender and self-efficacy. Neither social support nor self-efficacy had direct or mediating roles in predicting depressed mood among girls.

Among boys, social support and self-efficacy played significant roles in the connection between interpersonal stress and depressed mood. Among girls, daily worries were associated with depressed mood only among those with low self-efficacy, and interpersonal stress was associated with depressed mood only among those with high self-efficacy. The data presented here show that different stressors have different relationships to a single outcome – depressed mood – conditioned by gender and self-efficacy.

Bancila, D., Mittelmark, M. B., & Hetland, J. (2006). The association of interpersonal stress with psychological distress in Romania. *European Psychologist*, 11(1), 39-49.

Data from a community sample in Romania are presented on how social support and stress in interpersonal relationships are related to psychological distress (depressive symptoms, anxiety, and loneliness). Other predictor variables in the study were stress from daily living, self-efficacy, age, and gender. An important feature was the inclusion of measures of positive and negative aspects of interpersonal relationships. Many studies emphasize either social support, or interpersonal stress, but rarely both. A random population based sample of 1000 was drawn from age groups 25–29, 40–44 and 75–79. A study questionnaire was mailed to the sample. The analysis sample size was 581 (63 percent of the 922 persons located). The hypothesized relationships between the stressors, the resources, and psychological distress were examined using structural equation models. All the fit statistics indicated a good fit of the data to the model. The variance in psychological distress explained by the predictor variables was 0.83. There were no statistically significant age differences in the relationship between the predictors and psychological distress. Results confirm the study's basic premise, that social support influences psychological distress levels in a protective way, as does self-efficacy, while interpersonal stress and worries about daily living are significant predictors for elevated psychological distress. The study confirms the

importance of including measures of positive and of negative social ties in studies of psychological distress in community samples.

Bancila, D., & Mittelmark, M. B. (2007). Specificity in the relationships between stressors and psychological distress among Romanian adults: A longitudinal analysis. *International Journal of Mental Health Promotion*, 9(4), 4-15.

The aim of the study was to test for specificity in associations between psychosocial stressors (interpersonal problems, worries about daily living), distress (depressed mood, anxiety) and psychosocial resources (social support, self-efficacy). The data are from 402 Romanian adults who participated in a two-wave panel study. Structural equation models documented specific paths from (a) interpersonal stress to anxiety, (b) worries to depressive mood and to anxiety, mediated by self-efficacy, and (c) social support to depressive mood. Neither gender nor self-efficacy moderated stressor–distress relationships. These results support the specificity hypothesis. In these data, psychosocial stress–distress relationships are specific, with temporal specificity demonstrated for both direct and resource-mediated relationships. Research on psychosocial stress should therefore in future concentrate on specific, rather than general, constructs/measures of stressors and of distress.

Bancila, D., & Mittelmark, M. B. (2009). Measuring interpersonal stress with the Bergen Social Relationships Scale: Psychometric properties in studies in Norway, Romania, and Russia. *European Journal of Psychological Assessment*, 25(4), 260-265.

This study assessed the equivalence of the Bergen Social Relationships Scale (BSRS) across three countries. The six-item BSRS was developed to measure interpersonal stress in close relationships and is grounded in Festinger’s cognitive dissonance theory. In this context, interpersonal stress refers to perceived troubled relationships with significant others who cause stress even when they do not mean to (e.g., inept social support attempts, criticism, demands that are too high). Interpersonal stress is of considerable concern because community-based research indicates that levels of anxiety, depressive symptomatology, and loneliness are significantly associated with levels of interpersonal stress. Structural equation models were used to assess the equivalence of the BSRS linguistic versions used in community-based samples in Norway (n = 328), Romania (n = 581), and Russia (n = 665). Results indicate that the BSRS has satisfactory internal consistency and that the factor structure is invariant across all three linguistic adaptations. This study provides evidence that the BSRS is equivalent across countries and suitable for the assessment of interpersonal stress, both to compare population levels of interpersonal stress and to explore structural relationships with other constructs in analytical models of psychological debilitation. The BSRS is brief enough for use in survey research applications.

Banitt EC (2015). Perceived relational evaluation: biological, psychological, and physical health correlates. University of Northern Iowa. Electronic Theses and Dissertations, 159. [Scholarsworks.uin.edu/etd/159](http://scholarsworks.uin.edu/etd/159).

Humans have a fundamental need to belong, and being rejected or devalued elicits strong emotional reactions such as stress and anxiety (Leary, 2001). Low perceived relational evaluation (PRE), as a type of rejection, occurs when one person in a relationship believes his or her significant other does not regard his or her bond with the other person as valuable, close, or important (Leary, 2001). The goal of the research was to examine the interrelations among PRE, cortisol (biological stress), relationship quality, and physical and psychological within dating couples. Undergraduate female students (N =109) who were involved in dating relationships completed computer-based questionnaires assessing various aspects of their current relationship as well as measures of psychological and physical health symptoms. Immediately prior to and after completing the questionnaires, participants provided saliva samples that were subsequently analyzed for cortisol levels. PRE was expected to be positively correlated with satisfaction and commitment and negatively correlated with physical and psychological health. Relationship stress was expected to be positively correlated with physical health symptoms. Neuroticism was expected to be negatively correlated with cortisol and positively correlated with psychological health and physical health symptoms. Additionally, cortisol was expected to mediate the relationship between PRE and satisfaction, commitment, psychological health, and physical health symptoms. This mediational effect was further predicted to be moderated by neuroticism. PRE was positively correlated with satisfaction and commitment and negatively correlated with psychological distress. Contrary to expectations, PRE was not significantly correlated with physical health symptoms. In addition, cortisol was not significantly related to any of the criterion variables. Therefore, neuroticism was examined as a moderator variable between PRE and the criterion variables. However, no moderation results were significant. Strengths of the research include assessing PRE for its influence on physical and psychological health and obtaining self-report and biological indicators of stress. However, the research was limited by a small sample size and small effect sizes. Future research may benefit from utilizing a longitudinal design as well as including a measure of self-esteem.

Carlquist E, Nafstad HE and Blakar RM (2007). Community psychology in a Scandinavian welfare society: The case of Norway. In. Sm Reich, M Riemer, I Prilleltensky and M Montero (eds.) International Community psychology: History and Theories. <http://www.springer.com/gp/book/9780387494999>.

In the current review of CP in Norway, it is concluded that little CP is being undertaken, according to a stringent definition of CP work. However, many Norwegian psychologists across a wide scope of fields integrate and adopt CP principles in their work. Yet, the critical and political nature of CP has been absent. This situation is explained on the basis of sociocultural and political conditions. The ideals of social justice and security, empowerment, and community participation have been cornerstones in the development of the Norwegian welfare state. CP-oriented psychologists in Norway have more or less tacitly taken for granted that they are part of a larger system or process—the welfare society—characterized by fairness and social justice. As it is argued in the current review, the recognition of these values is diminishing,

due to globalization and the gradually stronger influence of neoliberalism (cf. Nafstad, Carlquist & Blakar, in press). Therefore, in the years to come, CP in Norway should render itself into a more prominent and critical discipline within Norwegian psychology, explicitly focusing on and arguing for alternative values based on solidarity and social equality.

Charoendee S (2005). The association of chronic social stress and psychological distress in Thailand. University of Bergen Master's Thesis, Research Centre for Health Promotion Report Number 3, 2005. ISBN-10 82-7669-106-4. Bergen Open Research Archive (BORA) http://bora.uib.no/bitstream/handle/1956/2523/hemilrapport2005_3.pdf?sequence=1&isAllowed=y.

This study investigated chronic social stress emanating from troublesome interpersonal relationships, and its association with psychological distress (e.g., depressive symptoms). This was done using a model of stress and coping in which stress from sources other than personal relationships was also measured (e.g., worries about personal finances), to isolate the contribution to psychological distress of chronic social stress. The model also included measures of external coping resources (e.g., social support) and internal coping resources (e.g., hardiness). Five-hundred and twenty-six women and men ages 25-29 and 40-44 from Maepum Sub-district, Phayao Province in North Thailand participated in this study, which used a quantitative survey methodology. Data were collected through self-completed questionnaires which included all the study measures. All study instruments were translated from English to Thai by the dual-focus method, which is concept-driven and strives to enhance the validity of a translation, rather than being translation driven. A convenience sample of 17 individuals participated in three focus groups that contributed significantly to the translation work. The translation process was highly participatory, drawing on participants' knowledge and experience of Thai language and culture and the wide range of knowledge they possess. Multiple linear regression models were used to study the relationship of psychological distress (depressive symptoms, anxiety, and loneliness) to the predictors (a) chronic social stress (social relationship issues), (b) worries about personal circumstances (other than social relationship issues), (c) social support, (d) self-efficacy, and (e) hardiness. The regression analyses revealed that level of worries about personal circumstances predicted levels of loneliness, anxiety, depression, and negative affect, and was the most potent predictor among those studied. Also, the chronic social stress measure was a significant predictor of loneliness, anxiety, depression and negative affect. Turning to the measures of coping resources, the most potent predictor among the social support/network variables in the analyses of loneliness and negative affect was satisfaction with the number of good friends. Global self efficacy was important in the prediction of loneliness and depression, while hardiness explained significant variability in the analyses of depression and negative affect only. The finding that negative as well as positive aspects of social relationships were related significantly to psychological

distress is consistent with highly similar studies in Norway and Romania. The findings suggest that the stress-distress model which was used in this study, adapted from a model used in Western studies, has good utility in the Thai context.

A limitation of this study is the cross-sectional study design, in which causal relationships among predictor and predicted variables cannot be confirmed. However, even the best designed longitudinal study would have great difficulty sorting out cause and effects relationships, since the so-called predictor variables and the so-called predicted variables are thought on theoretical grounds to have reciprocal influences on one another. Another possible critique is that subjective rather than objective measures of stress and distress are used. However, a fundamental assumption of this study and all other psychosocial stress studies is that stress and distress are constructed out of the interaction of the person (cognitions and emotions) and the environment. Thus, seemingly objective stressors may cause distress in one person and not another (e.g, great heights, crowding, arguments). Perhaps the most important limitation has been the study measures, which were adapted from Western studies. Factor analyses and other psychometric analyses revealed that for some of the measures, the expected factor structure, internal consistency of scale items, etc, was not entirely observed with these Thai data. These limitations notwithstanding, in this study of a sample of the general Thai population, these conclusions seem warranted: (1) level of chronic social stress is related significantly to level of psychological distress, after taking into account other sources of stress, such as worried about personal circumstances (also a significant predictor); (2) the perceived availability of social support and satisfaction with social ties is significantly and negatively related to psychological distress, and (3) the intrapersonal resources self-efficacy and hardiness are also significantly and negatively related to psychological distress. This study highlights the potential importance to Thai public health of interventions to strengthen positive social ties, reduce factors that exacerbate interpersonal conflict and relationship problems, and reduce environmental stressors that cause worries about the struggles of daily living. Thus, strengthening of both the informal and formal social support infrastructure of society may have important consequences for community mental health.

Clarke, H. M. (2013). Social support and mental health well-being following the economic collapse in Iceland 2008: A prospective cohort study. MPH thesis. University of Iceland, School of Health Science. <http://hdl.handle.net/1946/15421>.

An economic crisis has the potential to affect multiple aspects of well-being: financial, physical, psycho-social. Few studies have used individual-level data to prospectively investigate changes in social support in the aftermath of economic crises. This study investigated levels of perceived social support before and after the economic collapse in Iceland in 2008 and its potential modifying role on the association between the economic collapse and mental well-being. A nationally representative prospective cohort of 3621 Icelanders answered the health related questionnaire Health and Well-being of Icelanders in both 2007 and 2009. Perceived social support was measured with

two four-item questions on perceived trust and available help from others. Psychological stress was measured with the Perceived Stress Scale 4 (PSS-4) and depressive symptoms with the WHO-five Well-being Index (WHO-5). Results indicated that perceived social support generally increased between 2007 and 2009 [trust: 41.29 - 44.32%; $p=0.021$ | help: 45.04 - 48.91%; $p=0.001$]. Individuals experiencing a decrease in social support between 2007 and 2009 had increased odds of psychological stress [trust: adjusted odds ratio (aOR) = 1.81; 95% CI 1.15 – 2.85 | help: aOR = 3.13; 95% CI 2.01 – 4.86] and depression [trust: aOR = 1.73; 95% CI 1.27 – 2.35 | help: aOR = 2.05; 95% CI 1.48 – 2.82] in 2009. A similar trend in depressive symptoms was seen for individuals reporting low social support in both 2007 and 2009. Individuals reporting high social support in both 2007 and 2009 (trust) had increased odds of psychological stress. On the other hand, individuals reporting an increase in social support (help) between 2007 and 2009 had reduced odds of depressive symptoms [aOR= 0.71; 95% CI 0.53 – 0.96] but not in symptoms of psychological stress. Our findings indicate that alterations in perceived social support at times of national economic hardship is an important determinant of mental health, particularly depressive symptoms. Further research is needed to advance knowledge of mental health consequences of economic downturns in the long run and to characterize the modifying role of social support.

Konstantinova SV (2004). Chronic social stress and psychological distress in Russia. Master's thesis, University of Bergen, Bergen Open Research Archive (BORA), <http://bora.uib.no/bitstream/handle/1956/1314/Hovedoppgave-konstantinova.pdf?sequence=1&isAllowed=y>.

Background In the last two decades, after the collapse of the Soviet Union, chronic social stress and poor mental health have been recognized in Russia as important research areas. The current study is part of a larger chronic social stress research project initiated through Health Promotion Research Centre at the University of Bergen in Norway. In the overall project, data have been collected so far in Norway, Romania, Thailand and Russia. As in the other countries, the main aim of this Russian study was to explore the relationship between chronic social stress, social support, coping resources and distress in a community-based sample of men and women. All the studies in the programme are guided by a basic social psychological theoretical framework, in which chronic social stress is viewed as a transactional, cognitive process involving appraisal and not completely satisfactory coping, to resolve dissonance among cognitions about a significant other(s). Thus, of the universe of possible sources of stress (poverty, crime, crowding, war, etc), the focus of this study was narrow – restricted to subjectively defined stress caused by perceived problems in close interpersonal relationships. An important aim of the overall research programme of which this study is a part is to test the basic presumption that stress, when construed and defined in this way, is a fundamental human experience, equally relevant and equally debilitating in any culture, at any time, and in any place. A near replication of the results of the first study (in Norway) was observed in Romania. That

gave the impetus for this study, and the Thai study, to test if the particular stress-distress phenomena observed in Norwegian and Romanian cultures are equally as relevant in the rather different cultures of Russia and Thailand. v To attempt to isolate the psychological effects of interpersonal stress, the measurement of other kinds of stress were also included in the study. Psychological stress, the study outcome, was measured by self-reports of loneliness, negative affect, anxiety and depressive symptoms. The research model included also the measurement of two kinds of resources that have been widely reported in the literature to help people cope with stress: intrapersonal resources (hardiness and self-efficacy), and social resources (contact with others and perceived availability of social support).

Main study hypotheses • *Chronic social stress and worries about matters that do not relate to personal relationships are significantly related to depressive symptoms, anxiety, loneliness and negative affect, and are not influenced by age and gender. The expectation was that higher chronic social stress and worry levels would be related to higher distress levels. • Social support, self-efficacy and hardiness are all significantly and inversely related to depressive symptoms, anxiety, loneliness and negative affect, and not influenced by age and gender.*

Methods *The data for this study were collected in a cross-sectional population-based survey in 2003. A second wave of data was collected from the same participants several months later, but only the cross-sectional data are included in this thesis, to ensure a manageable thesis. The followup data will be used in subsequent studies, following completion of the master's degree, and are not referred to in this report. The study population was a random sample of 970 men and women aged 25-29 and 40-44 years. The self-administered questionnaire included four measures of psychological distress, vi three measures of stress, five measures of social coping resources and two measures of intrapersonal coping resources. Preliminary data analysis was performed using various simple descriptive methods, reliability analysis, and factor analysis. The main analyses related to the study hypotheses were multiple regression analyses.*

Results *The response rate was 69% (665 respondents). The scale assessing chronic social stress had six items. About 85 percent of women and 84 percent of men reported experiencing at least one of the six stressors and about 44 percent of women and 39 percent of men reported three or more stressors. Out of the 12 predictors studied, 10 were significantly associated with the four psychological distress indicators (loneliness, anxiety, depression and negative affect). The most potent predictor for loneliness and negative affect (in terms of variance accounted for) was hardiness ($R^2 = -0.21$ for loneliness and $R^2 = -0.20$ for negative affect). The most potent predictor of anxiety was personal worries ($R^2 = 0.26$), and for depression, general self-efficacy was the strongest predictor ($R^2 = -0.30$). Chronic social stress was less potent than the predictors listed above, but was nevertheless a significant predictor of loneliness, negative affect, anxiety and depression, as hypothesised.*

Discussion and conclusions *The study hypotheses were confirmed, suggesting that despite*

obvious cultural differences, Russians are equally exposed to, and equally susceptible to, chronic social stress, as are Norwegians and Romanians. This study thus offers support for a social psychological model of stress and distress that emphasises the deleterious consequences on mental health of chronic relationship problems, and the importance both of intra-personal and social coping resources. Now, three studies with very similar methods have observed basically the same psychosocial phenomena in three quite different cultures. While it may seem obvious to any lay person that chronic relationship problems cause psychological distress, stress researchers have tended strongly to focus on acute stressors, such as sudden illness, the death of a loved one, and so on. Thus chronic social stress has been trivialised in the literature, by its relative absence, if nothing else. Therein lies the significance of this study, which suggests the possibility that interventions to enhance the social environment, and strengthen intra- and inter-personal coping resources, may have a positive impact on community mental health. This is not directly suggested by this study, of course, but the present study adds to the empirical foundation for eventual intervention research on how strengthened social ties within close social groups might translate into better mental health for entire communities. The significance of this study also rests in part with its consideration of how positive as well as negative aspects of social relationships are related to mental health. Previous epidemiological research has mostly emphasised the study of the possible benefits of good social ties, however, and indeed, the present study provides further confirmation that positive social ties are directly and significantly related to better mental health. Also, the direct and strong relationship of hardiness and self-efficacy levels to psychological distress levels suggests the potential fruitfulness of further exploration into psychological mechanisms linking stress and distress. This study has examined direct effects of all the predictors on a range of outcome measures, but better models with greater explanatory power might be constructed in which constructs such as hardiness and self-efficacy are construed as mediators or moderators of the stress-distress link. While this can in principle be undertaken with the present data, the advanced modelling required was beyond the scope of this thesis. There is every intention, however, to continue examination of the data to explore these and other possibilities.

Kopp, M. S., Thege, B. K., Balog, P., Stauder, A., Salavecz, G., Rózsa, S., ... & Ádám, S. (2010). Measures of stress in epidemiological research. *Journal of Psychosomatic Research*, 69(2), 211-225.

A comprehensive assessment of psychosocial stress often poses significant challenges due to diversity in conceptualization of stress. Consequently, a number of instruments that measure psychosocial stress, its stressors, and its impact at the individual, organizational, and societal levels have been developed. This article aims to provide a brief review of such instruments, focusing on established questionnaire and interview measures in line with the environmentalist and psychological conceptualizations of stress. This includes measures of major life events; work, marital, and social stress; the individual's coping abilities; and psychological and somatic outcomes of stress. We provide a general description of selected instruments and discuss their administration, scoring, and psychometric properties. Appropriate application of these instruments in epidemiological and clinical research, as well as in inpatient care, can aid the detection

of psychosocial stress, support thorough assessment and management of the individual's illness, and ensure accurate identification of individuals who would benefit from specific behavioral (psychotherapeutic) interventions.

Kovács, É., Balog, P., Mészáros, E., & Kopp†, M. (2013). Married, cohabiting, and divorced marital status and mental health. *Mentálhigiéné és Pszichoszomatika*, 14(3), 205-230.

Background: In research on mental health, family status is often considered as a control variable. This shows that psychological health depends on the family status as well that gives a framework for everyday life. Marital status and relationship quality strongly affect the development of psychological well-being. Aim: The purpose of the present study was to examine the relationship between marital status (married, cohabiting, divorced) and mental health in the cross-sectional sample of Hungarostudy 2006. A data of 3,293 adults was analyzed. Methods: Married and cohabiting individuals were divided into high and low stress groups according to the Short Stockholm Marital Stress Scale in order to investigate whether mental health is affected by the spouse / partner relationship quality. Subjective well-being, interpersonal stress, anxiety, symptoms of depression, and suicidal thoughts were investigated as indicators of mental health. Results: According to our results, those people have the best mental health indicators who live in a good marriage or in a good partnership. These groups were significantly characterized by better psychological well-being, less depression, less anxiety, lower levels of social stress and the idea of suicide arises less often among them. In contrast, people living in a bad marriage or poor cohabiting relationship have the worst mental health indicators. Conclusion: A high quality partnership plays an important role in preserving and improving mental health.

Mittelmark, M. B., Aarø, L. E., Henriksen, S. G., Siqueland, J., & Torsheim, T. (2004). Chronic social stress in the community and associations with psychological distress: A social psychological perspective. *International Journal of Mental Health Promotion*, 6(1), 5-17.

Chronic social stress is strongly related to psychological distress in vulnerable groups such as the frail elderly and ill people. Little, however, is known about these phenomena in the general population. The validity and reliability of a new brief measure, the Bergen Social Relationships Scale (BSRS), were investigated in a Norwegian county; the prevalence of chronic social stress was measured using the BSRS, and the associations of chronic social stress and social support with three measures of psychological distress were investigated. Respondents with high BSRS scores had experienced longstanding, important interpersonal relationship problems rather than fleeting stressful incidents. Women reported higher levels of chronic social stress, 60% reporting positively on at least one of the six BSRS items, compared with 50% among men. Social support was negatively and significantly associated with various measures of psychological distress. Chronic social stress was positively and significantly associated with psychological distress. These effects were

independent of one another. No buffering effect of social support on social stress was observed. The present data support the importance of positive social ties to health, but suggest that social stress is an independent aspect of social environment with regard to health. If social support and social stress have direct and independent effects on mental health, as the present results indicate, intervention on the one will not necessarily modify the other. Intervention programmes may need to consider explicitly both the lighter and the darker sides of social relationships in building environments that support mental health.

Mittelmark, M. B. (1999). Social ties and health promotion: suggestions for population-based research. *Health Education Research*, 14(4), 447-451.

No abstract in this publication.

Murdock, K. K. (2013). Texting while stressed: Implications for students' burnout, sleep, and well-being. *Psychology of Popular Media Culture*, 2(4), 207.

Text messaging has become an integral part of social life, especially among adolescents and young adults. As a potentially continuously accessible form of communication, texting may affect individuals' psychosocial functioning in interesting—and unexplored—ways. The current study examines links among interpersonal stress, text messaging behavior, and 3 indicators of college students' health and well-being: burnout, sleep problems, and emotional well-being. It was proposed that high rates of text messaging may exacerbate the effects of interpersonal stress on these aspects of students' health and well-being. Participants included 83 first-year undergraduate students. Results of hierarchical regression analyses indicated that higher levels of interpersonal stress were significantly associated with compromises in all 3 areas of functioning. A higher number of daily texts was directly associated with more sleep problems. The number of daily texts moderated the association between interpersonal stress and both burnout and emotional well-being; interpersonal stress was associated with poorer functioning only at higher levels of texting. Promising future directions for research on texting behavior are discussed.

Nazir, A., & Mohsin, H. (2013). Coping styles, aggression and interpersonal conflicts among depressed and non-depressed people. *Health promotion perspectives*, 3(1), 80.

Background: *The present study compared people with depressive symptoms and people without depressive symptoms with reference to their coping styles, level of aggression and interpersonal conflicts.*

Methods: *A purposive sample of 128 people (64 depressed and 64 normal controls) was selected from four different teaching hospitals of Lahore. Both the groups were matched on four demographic levels i.e. age, gender, education and monthly income. Symptom Checklist R was used to screen out depressed and nondepressed people. The Brief COPE, the Aggression Questionnaire and the Bergen Social Relationship Scale were used to assess coping styles, aggression and interpersonal conflicts respectively. The Independent ttest was used to compare the groups. Binary logistic Regression was also carried out to predict the role of research*

variables in causing depression.

Results: *The results showed that level of aggression and interpersonal conflict was significantly more in people with depressive symptoms as compared to control group. On the other hand control group was using more adaptive coping styles than people with depressive symptoms but no difference was found in the use of maladaptive coping styles.*

Conclusion: *The present findings revealed that coping styles, aggression and interpersonal conflicts play important role in depression. Therefore, these dimensions must be considered while dealing with the depressive patients. Implications for preventive work are also discussed in the light of previous researches.*

Poortinga YH and JR van de Vijver (2013). Der umgang mit methodischen Stoperfallen in der kulturvergleichenden Stressforschung. In: P Genova et al (eds.) Handbook Stress und Kultur. Springer. DOI 10.1007/978-3-531-93499-5_10.

No abstract.

Skille SE (2012) Gender differences in social health concepts: A cross-sectional study on interpersonal stress, social support and companionship with a dog: correlates and sleep problems. Master's Thesis, University of Bergen, Bergen Open Resource Archive (BORA), <http://bora.uib.no/bitstream/handle/1956/6754/103657780.pdf?sequence=1&isAllowed=y>.

Background and overview: Social ties have profound effects on health and well-being, and men and women are found to differ in the concepts of it. Findings are however somewhat inconclusive on some aspects. This study contributes to existing knowledge about gender-differences in interpersonal stress, sleep-problems, social support, companionship with dog and correlations between these variables. As there are few studies on gender-differences in relation to companionship with dogs, this study contributes with some new knowledge. Method: The study used data from The Hordaland Health Study (HUSK). This study was conducted during 1997 to 1999, as a collaboration between the National Health Screening Service, the University of Bergen and local health services. The sample size is 4217 respondents aged from 40 to 44 years. Correlation analysis and logistic regression analysis were performed. Results: The results showed statistically significant, but low correlations of gender-differences. Women compared to men, reported a high degree of interpersonal stress, nocturnal sleep-problems, emotional support and security-feeling due to owning a companion-dog. Interpersonal stress was significantly correlated to nocturnal sleep-problems for both men and women, with women reporting a higher degree than men, although the effect was small. Logistic regression showed that the model on nocturnal sleep-problems for female dog-owners explained up to 14.7 % of the variance, which was the highest in the study. Significance and conclusions: Men and women differ in aspects of social ties, and interventions in health promotion must take this into consideration. Gender-differences can be explained by a combination of a fundamental need to belong, inherited adaptations and stress-theory.

Susánszky, É., Susánszky, A., Szántó, Z., & Kopp, M. (2010). Quality of life and life style of people in leading positions. *Mentálhigiéne és Pszichoszomatika*, 11(4), 371-389.

Háttér: Vizsgálatunk a vezető beosztásban dolgozók életminőségének általános leírásán túl nemi különbségekre fókuszál. A szakirodalmi hivatkozások szerint a nők számára nagyobb kihívást és nagyobb stresszterhet jelentenek a vezető pozícióval kapcsolatos munkahelyielvárások, és ennek hatása az egészségi állapottal kapcsolatos életminőség mutatóibanis leképeződik.

Módszerek: Almintánkat a Hungarostudy 2006-os országos reprezentatív felmérés adatbázisábólhoztuk létre, amelyben a 18 éven felüli, gazdaságilag aktív, vezető beosztásbanlévő személyek adatai szerepeltek (N = 344 fő). A vezető stresszterhelését a munkahelyistressz, a kapcsolati stressz, valamint a foglalkozási és magánéleti szerepek összehangolá-sából eredő stressz mutatóival jellemeztük. Az életminőség mérésére egyrészt specifikusés általános elégedettségi mutatókat és a boldogság szubjektív megítélését, másrészt azáltalános közérzet és az egészségi állapot olyan mutatóit használtuk, mint a krónikus betegségek, a szubjektív testi tünetek, a depresszió és a szorongás. Az életstílus kapcsán a rizikómagatartások (dohányzás, alkohol) előfordulását, valamint a testtömegindexet és afizikai aktivitás, sportolás gyakoriságát elemeztük.

Eredmények: A vezető pozícióban lévő nők és férfiak munkával kapcsolatos stresszterheia mutatók alapján nem különböztek. Ugyanakkor a szoros kapcsolatokból, valamint amunka és a család összeegyeztetéséből származó stressz-szint a vezető nők körében jelentősen magasabb volt, mint a férfiaknál. Az egészségi állapot önértékelése hasonlóan alakult,de emellett a nők az elmúlt 3 év vonatkozásában több orvosi kezelésről számoltak be, mint a férfiak, és lényegesen több szubjektív testi tünetet jeleztek, ami jelentősebb szomatizáció-ra utal. A vezetők általános jóllét szintje nemenként nem különbözik, de emellett a nők nagyobb arányban szoronganak, és elégedetlenebbek a szexuális életükkel, míg a férfiakrajellemzőbb az ellenséges beállítódás. A vezető férfiak gyakrabban fogyasztanak alkoholtés elhízottabbak, mint a női kollégáik.

Következtetések: A vizsgálat eredményei alapján nem állítható, hogy a női vezetők sérü-lékenyebbek, mint a férfiak.

Vorderer P, Krömer N and Schneider FM (2016). Permanently online – permanently connected: Exporations into university students' use of social media and mobile smart devices. *Computers in Human Behavior*; 63:694-703.

<http://dx.doi.org/10.1016/j.chb.2016.05.085>.

Background: With the availability of mobile smart devices, many adolescents have developed the habit of being online and connected with other users almost all the time. Objective: The aim of this paper is to provide a definition of being permanently online (PO) and permanently connected (PC) and to explore students' current PO/PC behaviors.

Methods: An online survey was conducted with 178 university students in Germany to explore the intensity of their PO/PC behaviors in various social situations, the differences in being PO and being PC, students' feelings about a possible loss of Internet access, and their online responding behaviors. We also shed some light on the associations between being PO/PC and various aspects

of well-being, as well as between PO/PC and demographics and lifestyle.

Results: *Smart device usage behaviors at night and behaviors in various social situations during the day indicate that PO and PC behaviors are occurring frequently. The results show that being connected to others (PC) seems to be more relevant to the participants than browsing the web (PO). Moreover, the participants expressed strong emotional responses about a temporary loss of Internet access. Coping behaviors in response to increasing number of incoming messages and permanent availability are reported.*

Conclusion: *This exploratory study demonstrates the relevance of the concepts of being PO and PC to students, and points out further research gaps.*