Self-rated quality of life among unemployed people and people in work in northern Sweden

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Abstract

Self-assessed quality of life (QoL) is analysed using a QoL questionnaire (Hörnquist's QLcs) covering the life spheres: somatic health, mental well-being, cognitive ability, social and family life, activity, financial situation, meaning in life and a global score for 'entire life'. In all, 487 unemployed and 2917 employed subjects aged 25-64; and 651 unemployed subjects and 2802 in work (including employment, studying and military service) in the 18-24 age group, were investigated in a population-based cross-sectional study on life and health in northern Sweden in 1997.

In line with previous findings, results showed that unemployed people exhibited poorer QoL. The greatest difference between unemployed people and those in work was in the financial domain (18-24, 25-64). Unemployed women (aged 25-64) rated the final values of QoL – 'entire life' and meaning in life – higher than unemployed men did. In the young group (aged 18-24), unemployed women did not rate any of the domains higher. The young unemployed men rated somatic health and mental well-being higher. Interaction effects were interpreted in the following way: a) unemployed men (aged 25-64) were worst off in the global domain 'entire life'; b) employed respondents, having a university/college education was beneficial for QoL, while for unemployed respondents (25-64) it was not; c) in the young group (aged 18-24), people in work rated their activity higher than unemployed people, and the effect was strengthened when they were regularly active during leisure. Close friends and cash reserve were important for all participants, no matter whether they were employed or not. The risk of being young and unemployed was greater if the person had a shorter education, worse economy (according to their own ratings) and was in the upper half of the age group (aged 21-24). Finally, the conclusion that QoL is poorer when in unemployment – both for the young and those who are older (aged 25-64) – is in line with earlier findings; however, in contrast to three previous studies, we conclude that psychological well-being is even poorer for young people than for those who are older.

Intervention, in terms of steadily improved labour market conditions to counteract the negative effects of exclusion from the labour market, is of great importance from a public health perspective.

Key words

Unemployment, Quality of Life, Health, Well-being

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Självskattad livskvalitet bland arbetslösa och sysselsatta i norra Sverige

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Sammanfattning

Självskattad livskvalitet (QoL) har analyserats med ett QoL instrument (Hörnquist's QLcs) omfattande livsdomänerna: kroppslig hälsa, psykiskt välbefinnande, kognitiv förmåga, socialt liv, sambo/familjeliv, aktivitet, ekonomi, livsmening och en global skattning för 'hela livet'. Totalt, 487 arbetslösa och 2917 anställda i åldrarna 25-64; och 651 arbetslösa och 2802 i sysselsättning (anställda, studerande och värnpliktiga) i åldersgruppen 18-24 år, undersöktes i en befolkningsenkät (tvärsnittsstudie) om hälsa och livsvillkor i norra Sverige 1997.

Som i tidigare studier visade resultaten sämre QoL bland de arbetslösa. Största skillnaden mellan arbetslösa och sysselsatta fanns i den ekonomiska domänen (18-24, 25-64). Arbetslösa kvinnor (25-64) skattade finala värden av QoL – 'hela livet' och livsmening - högre än arbetslösa män. I den unga gruppen (18-24), skattade inte arbetslösa kvinnor högre i någon av livsdomänerna. De unga arbetslösa männen skattade kroppslig hälsa och psykiskt välbefinnande högre. Interaktionseffekter tolkades på följande sätt: a) arbetslösa män (25-64) låg sämst till i den globala domänen 'hela livet'; b) bland de anställda var universitets/högskolexamen fördelaktigt för QoL men inte bland de arbetslösa (25-64); c) i den unga gruppen (18-24) skattade de sysselsatta aktivitet högre än de arbetslösa, och effekten stärktes ytterligare när de var regelbundet aktiva på sin fritid. Nära vänner och tillgång till kontanter var viktiga för alla deltagare, oavsett om de var i sysselsättning eller inte. Risken att vara ung och arbetslös var större om individen hade kortare utbildning, sämre ekonomi (enligt deras egna skattningar) och befann sig i den övre halvan av åldersgruppen (21-24). Till sist, slutsatsen att QoL är sämre när man är arbetslös – både för unga och de äldre (25-64) – överensstämmer med tidigare forskning; dock, i motsats till tre tidigare studier, är det psykiska välbefinnandet sämre bland de unga jämfört med bland de äldre.

Intervention, i form av stadigt förbättrade arbetsvillkor för att motverka negativa effekter och utestängande från arbetsmarknaden, är av stor betydelse i ett folkhälsoperspektiv.

Nyckelord

Arbetslöshet, Livskvalitet, Hälsa, Välbefinnande

List of original papers

This thesis is based on the following original papers, which will be referred to in the text by their roman numerals[1]:

I Hultman, B., Hemlin, S., & Hörnquist, JO. (2006). Quality of life among unemployed and employed people in northern Sweden. Are there any differences? *Work*, 26, 47-56

II Hultman, B., & Hemlin, S. (Accepted). Self-rated Quality of Life among the Young Unemployed and the Young in Work in Northern Sweden. *Work*.

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CONTENTS

Original papers

Study I: Quality of life among unemployed and employed people in northern Sweden. Are there any differences?

Study II: Self-rated Quality of Life among the Young Unemployed and the Young in Work in Northern Sweden.

INTRODUCTION

This thesis is about work and health. More specifically we have studied the relationship between employment status[1] and quality of life (QoL). Working life is of fundamental importance for a well-functioning society. As working life is an important field also in most people's own lives, the relationship between labour market position[2] and QoL is of great interest.

A connection between labour market position and health, and especially between unemployment and mental health and/or psychological well-being, has been shown in many studies (see e.g. Wilson & Walker, 1993; Hallsten, 1994; Claussen, 1999). However, there are rather few studies of unemployment and QoL.[3] Against this background, this thesis seeks to study the relation between people's work situation and QoL. The two studies in this thesis aimed at describing QoL in relation to employment status, in an older group (aged 25-64) (Study I) and in a younger population (aged 18-24) (Study II). The data was collected from a public health survey conducted in 1997, about life and health in northern Sweden.

BACKGROUND

First of all, self-rated quality of life among unemployed people and people in work in northern Sweden is presented in the context of the Swedish labour market. I then introduce three concepts which are all important in this thesis: health, public health, and QoL including some instruments for measuring QoL. Third, the consequences of labour market position on health in general are described. In this section relevant consequences of unemployment on health, QoL and sense of coherence are also reviewed. Finally, theoretical models of social psychological health effects of unemployment/employment are introduced.

[1] Study I unemployed/employed; Study II unemployed (including unemployed in employment measures)/in work (employed, students, in military service).
[2] The degree of attachment to the labour force.
[3] Databases used the 22nd of February 2007 were PubMed, Psychoinfo, Business source and Arbline.

The Swedish labour market

The belief that work is one of the determinants of people's health and welfare was one of the main points for an economic model developed in Sweden at the end of the 1940s by Rehn and Meidner[4] (Erixon, 2003). The Rehn-Meidner model was first introduced in the Swedish Trade Union Confederation in 1951, and was soon after implemented in the Swedish government's economic policy. One of the goals, in order to create stable growth, was to ensure full employment through a wage policy, which shows solidarity with low-paid workers. Tendencies of unemployment were to be held back by different industrial mobility measures. Action plans introduced were, for instance, relocation grants for those seeking work in another region, salary grants for people with a handicap and vocational training courses to improve qualifications or a new occupation.

In retrospect it seems that Sweden was successful in its ambition to reach full employment. In 1983 and in 1990, Sweden had the highest participation rate in the labour force[5]: 83% and 84.7 % respectively, with an unemployment rate of 3.7% in 1983 and 1.7% in 1990 (OECD, 2004)[6]. Moreover, Sweden was in a top position concerning the labour force participation rate among women: 78.3% in 1983, and 82.5 % in 1990 (OECD, 2004). The high position in the labour force participation rate could also be a consequence of proportionately many older people in employment. However, in the course of two or three years 600 000 jobs disappeared (Backhans, 2003). In 1997 the unemployment rate had reached a high percentage (9.9) (OECD, 2004).

Later on a recovery was seen. In 2004 Sweden had a prominent position in the labour force participation rate, ranking fifth (with Iceland in first place, 85.5 %), and an unemployment rate of 6.6 % (OECD, 2006)[7]. In the rest of the Nordic countries the unemployment rate was in 2005 for Denmark 4.9 %, Finland 8.5 %, Iceland 2.7 %, and Norway 4.7 % (OECD, 2006)[8]. In January 2007 the Swedish unemployment rate had decreased to 4.4 %[9].

[4] Economists then employed in the Swedish Trade Union Confederation (LO).
[5] Persons aged 16-64 years in the labour force divided by the working age population.
[6] European countries, and also Australia, Canada, Japan, New Zealand and the United States.
[7] In 2006 also including Iceland, Korea, Mexico and Turkey.
[8] The unemployment rate was not reported for Sweden and Netherlands in 2005 (OECD, 2006)
[9] arbetsförmedlingen-kundtjänst@ams.amv.se (National Labour Market Board).

Health and Public Health

Health

The biomedical dichotomous definition of health as the absence of disease did not place much emphasis on how an individual's mental health might affect her/his physical health (Baum, 2003). This led to a new definition by the World Health Organisation (WHO) in 1948 – 'a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity' (WHO, 1948) – which has by some been criticised as being too utopian. The WHO's idea was to draw attention to societal, psychological and spiritual aspects of health. Today the WHO discusses health as a resource for everyday life, for the individual and also for society (Pellmer & Wramner, 2001). However, views or concepts of health vary widely. Individual dimensions of health discussed by Naidoo and Wills (2001) were: physical (concerning the body), mental (referring to a positive sense of meaning in life), emotional (the ability to express feelings and sustain relationships), and social (the sense of having support from family and friends). The lay understanding of health was shown in a British survey (Blaxter, 1990). Blaxter identified eight main perspectives on what people mean when they talk of health – 'not ill/diseased, a reserve, a behaviour/the healthy life, physical fitness, energy/vitality, social relationships, a function, psychological well-being'.

As mentioned in the introduction, mental health seems to be the health indicator that is used most in research on unemployment, and also the one that is most referred to in this thesis.

Public Health

The focus in public health is on populations rather than individuals (see e.g. Janlert, 2000). The idea is to change risk factors in populations by means of intervention programmes. Treating high-risk individuals creates the prevention paradox, which brings 'much benefit to a population but offers little to each participating individual', e.g. using seat belts (Rose, 1985). It is also important to remember that intervention programmes should have a salutogenic perspective and be evidenced-based (Pellmer & Wramner, 2001).

Whereas the 'old' public health policy focused on physical infrastructure (adequate housing, clean water etc.), the 'new' public health policy (from the mid-1980s onwards) also includes social support, social capital and lifestyles. Other contrasts are the legitimacy of many methodologies in addition to epidemiology. Moreover, in the 'old' public health policy the focus was on groups that were poor or had special needs. Today the aim of public health philosophy is equity (Baum, 2003).

Threats to public health today, discussed by Baum (2003), are rapid globalisation, including a reduction in the role of government and cuts in the public health service, and also a deteriorating physical environment.

In order to work in a systematic and goal-oriented manner, for a good and equal health in the population, the Swedish government presented a bill to the Swedish Parliament in December 2002, which defined 11 target areas for public health policy.[10] The aim is to 'create societal conditions for good health on equal terms for the whole population' (Hogstedt, 2003, p.11). Target areas are based on determinants of health, rather than mortality rates, disease outcomes or other health measures. Unemployment is mentioned as one of these important determinants. The target areas that are especially applicable in this thesis are the first – 'Participation and influence in the society', the second – 'Financial and social safety', and the fourth – 'Increased health in working life'.

Similar public health policies and reasons for dealing with public health have been raised in the other Nordic countries with the aim of creating good lives for the citizens (Kamper-Jørgensen, 2004; Vallgårda, 2007). Moreover, public health work as an economic investment for society is considered. The health problems identified are almost the same: cancer, heart disease, diabetes, musculoskeletal diseases, and mental illnesses. Also, diet, physical inactivity, alcohol, and smoking are mentioned as important causes of poor health. However, the explanations and solutions to the problems differ. The Danish programme focuses on lifestyles and the importance of individual behaviour; Sweden and Norway emphasize living conditions and social relations, with unemployment, poor social networks and lack of social support as important causes of poor health (Vallgårda, 2007). But, while the Norwegian programme stresses strengthening the individual, inspired by Antonovsky (1987), Sweden

[10] Regeringens proposition 2002/2003:35.

stresses the importance of strengthening the welfare state and the participation of the citizens (Vallgårda, 2007). Kamper-Jørgensen (2004) drew the same conclusion: that the Nordic countries have similar goals, but due to their political traditions their strategies differ.

Quality of Life

In the wider research community there is still no common definition or dominating theoretical framework of QoL (Bowling, 2005). QoL has been defined in micro (individual) but also macro (societal) terms (Bowling, 2005), and appears to be a complex collection of interacting subjective and objective dimensions. According to philosophical traditions, QoL is a final value about goodness in life, and says something about whether life, in the individual's opinion, is worth living (Hörnquist, 1989; Brülde, 2003). However, in this tradition QoL is a subjective phenomenon, and there is no 'gold standard' for what a good life is (Rokne Hanestad, 1993). From this perspective it is important to differentiate between relationships in final and instrumental values of QoL (Brülde, 2003). To capture a finally valued QoL it could be appropriate to ask about the degree to which an individual is satisfied with her/his life. Instrumental variables, such as health, could be used to assess possible ways of improving or impairing QoL (Brülde, 2003). Income is instrumentally valuable, but the final QoL may not necessarily be better if wages are increased.

Is it possible to measure QoL? Since many scales for measuring QoL are developed ad hoc, and lack a well-reasoned theory, it is important to explain the reasons underlying the particular instrument's appearance and contents, for example the inclusion of indicators, without final status (Bowling, 2005; Brülde, 2003). When using instruments that include indicators of QoL there should be some kind of scientific evidence for an association between the indicators and QoL. As an example, income above a certain level could be important for experiencing a good enough life. This knowledge makes a secure employment generally speaking a prerequisite for good QoL.

A broader measure of health status, e.g. the SF-36 (Sullivan, Karlsson & Ware JR, 1995) has been used by many investigators to measure health-related QoL or a broader QoL concept (Bowling, 2005). However, the complexity of the concept QoL has been neglected. The focus has been on functioning, rather than directing the attention to the individual's views and

expectations of goodness in life (Bowling, 2005; Brülde, 2003). Broader scales of QoL have mostly been developed outside disease-specific contexts. The WHO developed two broader scales measuring QoL applicable in different cultural settings, the WHO-QOL-100 and the WHOQOL-BREF, where the latter scale is a 26-item version of the WHO-QOL-100 (WHOQOL Group, 1998a; WHOQOL Group, 1998b). These scales aim to measure individuals' perceptions 'of their position in the context of their culture-value systems in relation to goals, expectations, standards and concerns' (Bowling, 2005, p.149) and contain broad domains of QoL including physical, psychological, social relationships and environment. Items are rated on a five-point scale with time reference 'in the last few weeks'. The instruments have good discriminant and content validity, also a good test-retest and face validity (Bowling, 2005). However, work on validity and reliability is continuing. Although the WHO-QOL-100 is lengthy, it has been accepted well by respondents (Bowling, 2005).

Another example of a generic, individualized QoL scale examined by Bowling (2005) is the Schedule for the Evaluation of Individual Quality of Life (SEIQoL) (Browne, O'Boyle, McGee, McDonald & Joyce, 1997). The respondents are supposed to nominate five areas of QoL which are the most important for them, and then they are asked to rate their current status in each area. The instrument has been reported as being acceptable to people. Validity has been partly assessed and has indicated that the SEIQoL was sensitive to individuals' QoL. However, differences in nominated areas between healthy and diseased people justify the use of an individualized scale. Test-retests indicated that most people were consistent in nominated values. The instrument has inspired others to design semi-structured questionnaires for exploring the QoL (Bowling, 2005). One of the shortcomings of measuring SEIQoL is the fact that interviewers are required, which makes it expensive.

Bowling (2005) also reviewed several other broad instruments measuring QoL. My reason for choosing to review the two instruments above is that the WHO-QOL is a well-known and often used instrument. The SEIQoL is interesting as it deals within the value system of the individual rather than within the value system of others.

The QoL instrument used in this thesis, Hörnquist's Quality of Life, change and status, assessment strategy (QLcs), postulates that QoL covers life in all its aspects but also different sub-domains of life (Hörnquist, 1989). Life quality is defined as perceived global satisfaction but also as satisfaction within a number of separate life domains. According to Brülde (2003)

and Bowling (2005), the measure includes both final and instrumental values. This assessment strategy consists of two complementary parts: the *life domain* rating and the *well-being* rating (Hörnquist, 1989). The life domains in the scale include biological, psychological, social, behavioural, material and structural spheres, and consist of a static and a dynamic version. The well-being scale contains ten statements for the respondent to agree with or not, five pairs of opposites with mainly emotional contents, e.g. basic mood, anxiety. In the static version the respondents report their actual situation within the different life domains ("How is your life nowadays?"). The ratings of the dynamic version indicate retrospective ratings of changes. Subjects are asked to estimate "How has your life changed in relation to 6 months ago?" The self-ratings are scored on a Likert scale from +3 across 0 to -3. The instrument has been psychometrically tested and found reliable with regard to internal consistency and parallellity, discriminatively valid, prognostically valid as well as conceptually and convergently valid. Finally, it has been shown to be sensitive to changes in well-being over longer as well as shorter periods of time (Hörnquist, 1989; Hörnquist, Wikby, Hansson & Andersson, 1993). Hörnquist's assessment strategy in the public health survey – Life and Health – has been used in this thesis to describe and analyse differences in QoL among unemployed people and people in work in northern Sweden.

To sum up, since many scales have a pragmatic approach to measuring QoL, three central issues stand out with regard to the usefulness of measuring QoL: How is QoL defined? How is QoL measured and operationally analysed? What is the purpose and relevance of the questions measuring QoL? (Häyry, 1995; Rokne Hanestad, 1993).

Labour market position and health

Jahoda discussed the meaning of work, and why we need work. She argued that a bad job is better than no job at all (Jahoda, 1982). However, according to Fryer and Payne (1984) unemployment could in some cases be a life-enhancing experience. Nevertheless, being in secure employment is in general beneficial for one's identity and psychological well-being. But being in secure employment could mean different forms of employment and lead to different consequences for health.

Working part-time is more frequent among women and is related to more responsibility within the family (Båvner, 2001). Men's part-time work is often connected with studies, with growing old or with health problems.

The position most studied in the labour market is probably unemployment. The negative consequences of unemployment were described already in the 1930s, by researchers such as Eisenberg, Jahoda, Lazarsfeld and Zeisel (Eisenberg & Lazarsfeld, 1938; Jahoda, Lazarsfeld, & Zeisel, 1971). This is also what this thesis sets out to do.

Unemployment and health

Mental health is probably the most investigated variable when considering individual consequences of unemployment (Hallsten, 1997). Most studies have demonstrated that losing a job typically results in reduced levels of psychological well-being independent of previous mental health (Ezzy, 1993). Although there were no established scales of mental health in the 1930s, the general conclusion was that being unemployed was unpleasant and destructive in a psychological sense (Jahoda, 1981).

Changes in physical health among the unemployed have not always been easy to demonstrate. For example, in a Croatian study, where subjective health was assessed by a health survey, psychological health was lower in all dimensions for the unemployed. On the other hand, ratings for physical and general health were similar to those of the general population (Maslic Sersic, Sverko & Galesic, 2005). In a telephone survey in Germany, unemployed women and men suffered more frequently from diseases and complaints, and made more negative assessments of their health (Lange & Lampert, 2005). However, the analysis also indicated that poor health increased the risk of unemployment.

Cohort studies, during a follow-up period from 1980-1986 in Sweden, showed higher mortality rates among the long-term unemployed than among the employed (Stefansson, 1991). The total mortality rate ratios were 1.37 for men and for women 1.14. Middle-aged men were especially vulnerable and suicide and alcohol-related deaths could not explain the higher mortality ratios among these men. In a 10-year cohort study the death rate among the unemployed was two to three times higher than among those in employment (Iversen, Andersen, Andersen, Christoffersen & Keiding, 1987). The dominating causes of death were accidents and suicide, but there were also cardiovascular diagnoses.

Conclusions from research of unemployment and health show in general: 1) that unemployment negatively influences mental health, in both cross-sectional and longitudinal studies (Björklund & Eriksson, 1998); 2) that the severity of health effects, such as increases in blood pressure, is related to the duration of unemployment (Janlert, 1992); 3) that depending on factors included, the effects on health may vary; typical moderating factors could be age, gender, income, social support, reason for job loss, commitment to employment, expectation of returning to work and length of unemployment (Ezzy, 1993); 4) that explanations for causes and effects are still unclear, and more *ad hoc* than theoretically derived from empirical research (Ezzy, 1993; Lange & Lampert, 2005).

Unemployment and quality of life (QoL)

As mentioned above, few studies have focused on the relationship between employment status and QoL. Most articles measuring QoL focus on how a disease, for example multiple sclerosis, influences QoL. However, Buchtová (2004) showed that long-term loss of work has a negative influence on the total evaluation of QoL, satisfaction with particular fields of life (family, health, work, well-being and relations among people), and also the evaluation of meaningfulness of life. To measure the subjective evaluation of QoL, Buchtová used the Schedule for the Evaluation of Individual Quality of Life scale (SEIQoL) (described on p. 6). Ytterdahl and Fugelli (2000) also measured health and quality of life among long-term unemployed people. They used Hopkins Symptoms Check List (HSCL-30) to measure anxiety and depression and to measure QoL they used a standardized questionnaire which included both cognitive and affective items. They concluded that anxiety and depression were twice, respectively three times, as common among the unemployed compared with the general population. Also, the unemployed, especially men, rated QoL lower than the general population.

Unemployment and sense of coherence (SOC)

Sense of coherence (SOC) has also been used in relation to unemployment (Starrin, Jönsson & Rantakeisu, 2001). In the framework of a finances-shame model, SOC measured (n = 1249) the extent to which life is comprehensible, manageable and meaningful. In the group exposed

to a greater degree of financial hardship and with more 'shaming experiences', the SOC score was 42.14 for women and 42.41 for men. With fewer shaming experiences and a lesser degree of financial hardship, the corresponding figures were 67.10 and 66.66 respectively.[11] A possible explanation discussed by the authors was that negative effects of unemployment on SOC become more pronounced as financial and social deprivation increases.

Theoretical models of the effects of unemployment/employment

There are several theories which try to explain the consequences of unemployment and the deterioration in health of the unemployed population, and foremost the mental health (see e.g. Ezzy, 1993). Levels of theories differ from hypotheses to 'grand theories', with universal, all-embracing designs. Descriptions of a small section of social reality should use a so-called 'middle range theory', like Jahoda's functional model (Giddens, 1997). They are specific enough to be empirically used but also general enough to be useful in studying different social phenomena. However, no matter what theory is used, a common and central question in unemployment research is: How can the variations in the effects of unemployment be elucidated and made clear?

In the following section, I review the most common theories of the effects of unemployment/employment (see also appendix I). The '*rehabilitation approach'* sees unemployed people as psychologically disabled and in need of rehabilitation (see e.g. Tiffany, Cowan & Tiffany, 1970). The problems are viewed as being located within the individual and as a neglect of social roots. Studies in this genre have generally been carried out in times of relative prosperity, with low unemployment rates (Ezzy, 1993). For example, in the USA the late 1960s was a period of relative prosperity, when an individualistic rather than a structural perspective was conceivable as an explanation for unemployment. The approach simplifies the experience of being unemployed, is very person-centred, and according to Ezzy (1993) has a certain flavour of 'blaming the victim' syndrome.

Jahoda's functional model is probably one of the most commonly referred to, concerning social psychological consequences of unemployment. The social phenomenon that Jahoda

[11] The mean SOC in a Danish public health survey was about 65 (Due & Holstein, 1998).

tries to understand is the meaning of work. She makes use of Merton's functional paradigm which points out the distinction between manifest and latent consequences in social activities (Merton, 1968). Jahoda takes for granted that salary to 'earn a living' is a manifest effect of employment. The latent consequences that fulfil 'psychological needs' are what Jahoda calls: 'time structure on the waking day; regularly shared experiences and contacts with people outside the nuclear family; goals and purposes that transcend their own; personal status and identity; employment enforces activity' (Jahoda, 1981, p. 188). The deteriorating psychological effects of unemployment can be explained by the individual's loss of 'ties to reality'. Jahodas's belief is that 'even unpleasant ties to reality are preferable to their absence' (Jahoda, 1981, p. 189). She also discusses informal economy, such as domestic work, as a possible functional alternative to employment. According to Jahoda, leisure activities, such as sports, are fine supplements to employment, but not an alternative to it. However, the theory does not take into account the fact that for a minority, who are leaving a dissatisfying and stressful job, unemployment can be a relief.

Warr's vitamin model aims at an overall quality-of-life model by identifying principal categories of the environment and clarifying the processes through which these influence mental health (Warr, 1987). The nine environmental features, or 'vitamins', have crucial meaning for mental health, no matter whether a person is employed or not (Warr, 1987). These features are 'opportunity for control, opportunity for skill use, externally generated goals, variety, environmental clarity, availability of money, physical security, opportunity for interpersonal contact, and valued social position' (Warr, 1987, p. 2). Access to these environmental features determines mental health and can be compared to the effect of vitamins on physical health. In contrast to Jahoda's theory, the vitamin model accounts for positive effects of leaving a difficult job and negative effects of being employed in an unpleasant job. Warr also takes into consideration the moderating effect of baseline mental health. In general, this means that higher levels of baseline mental health include a greater ability to cope with problems and take advantage of new opportunities (Warr, 1987). However, although he considers mental health to be relatively stable, he also perceives mental health as open to change. Similar to Jahoda's model, the focus is on the individual's environment, and with few exceptions – such as hers – has seldom been used in empirical research (Backhans, 2003).

Fryer's agency critique is based on the assumption of personal agency among both employed and unemployed people (Fryer & Payne, 1984). He criticizes Jahoda for not taking into consideration the unemployed themselves. Fryer and his colleague Payne prefer to see the individual as 'an active social agent striving to make sense of his or her situation and acting according to reasons and intentions to pursue chosen goals' (Fryer & Payne, 1984, p. 287). They found among unemployed informants some so-called 'agents' who faced reality in more positive valued directions, instead of passively watching what was lost. The predominant characteristics among these 'agents' as a group were that they had been active throughout their lives. Some had been eminent in careers in spite of having no formal education: some had a successful academic career behind; and others had positive experiences in community activities or in political organizations (Fryer & Payne, 1984). Jahoda criticized Fryer for engaging in psychological reductionism, and ignoring the importance of social institutions and over-emphasizing cognitive processes (Ezzy, 1993). In my view, Fryer's contribution to research is that he reported how unemployed people could find meaningful activities and consider themselves mentally healthy, despite the fact that they had no secure employment. However, he did not take into consideration the unemployed person as constrained, and to some extent influenced by social circumstances and institutions.

The status passage theory views unemployment as a process, a stage in a transition which may involve both job loss and re-employment (Ezzy, 1993). This theory 'focuses on the interaction between a person's objective social environment and their subjective interpretation of this environment' (Ezzy, 1993, p. 48). Ezzy suggested that the passages are divided into two basic types: divestment and integrative passages on a continuum. Unemployment could in general be considered as a divestment passage with loss of status, although for a minority of people unemployment could be an acceptable and new status, including a period of growth. The effect on mental health can be seen as a product of the meanings given by an individual to her/his objective social relationships. Psychological distress is seen as a failure to find a meaningful life. If the individual cannot find a satisfying alternative identity, this could lead to depression or at least deterioration in mental health. On the other hand, if the employment plays only a peripheral part in enabling a meaningful life, the effects are likely to be more positive. This theory could be used to explain variations in mental health consequences among the unemployed from time to time. However, the model does not include a systematic method for measuring output effects on mental health among the unemployed (Backhans, 2003).

Theories on economic deprivation originate from the 1930s, when deprivation was absolute for the unemployed (Jahoda, 1982). Although today's deprivation is relative, compared with that of the 1930s, researchers still report financial hardship and also shame among the unemployed (see e.g. Rantakeisu, Starrin & Hagquist, 1996; Starrin, Rantakeisu & Hagquist, 1997). *The financial-shame model* was developed on these findings with two theoretical traditions brought together. On the one hand, the financial aspect linked to research on financial stress and deprivation; and on the other hand, the social aspect related to micro-sociological research on social bonds and social networks (Starrin et al., 2001). Empirical studies reported that the majority of unemployed people believe that the general public views unemployed persons in a negative way. The experience of the unemployed was that others saw them as 'worthless', 'lazy' and 'parasites' etc. (Starrin et al., 1997, p. 50). The conclusion was that 'the old economic deprivation theory' with financial problems and shame was still intact during the 1990s; problematic psychosomatic health effects, as well as feelings of powerlessness, depression and nervousness/unease were reported (Starrin et al., 1997).

Health effects among unemployed people are sometimes explained by *stress theory*, originally applied in the science of social medicine. Stress is often described as a state of tension with cognitive, emotional, physiological and behavioural reactions to different kinds of external stimuli (Passer & Smith, 2004). These stimuli are called stressors and can be experienced as threatening and putting demands on us. The stressfulness of a situation is related to the balance between the demands of a situation and a person's resources. Unemployment could be a stressor, especially if the duration of unemployment is long (Theorell, 2002), and could increase the risk of illness and death (Passer & Smith, 2004). High blood pressure could be a physiological health consequence of unemployment, but also negative coping behaviour, such as increased consumption of alcohol and smoking is reported (Hammarström, 1994; Janlert, 1997).

Sense of Coherence (SOC) is designed to explain a person's location on a 'health/dis-ease' continuum with items of comprehensibility, manageability and meaningfulness (Antonovsky, 1993; Antonovsky, 1996). The purpose was originally to advance the understanding of the relations among stressors, coping and health (Antonovsky, 1993); but also to find out whether SOC can be regarded as a stable or variable position (see e.g. Antonovsky, 1987). According to Antonovsky, SOC is relatively stable in adulthood. Unemployment is not easy, but easier to handle for those with a strong SOC (Antonovsky, 1987). An individual with a strong SOC

finds strategies, e.g. contacts the labour union about redundancy payment and pension benefits. Antonovsky's conclusion is that unemployment is less harmful for a person with a strong SOC and could even be a positive turning-point in life (Antonovsky, 1987). In contrast to many other models, this theory has been used in empirical research of unemployment (see e.g. Hanse & Engström, 1999; Starrin et al., 2001; Feldt, Leskinen & Kinnunen, 2005).

The theories presented above are often described and discussed in social science, social medicine and public health science (Ezzy, 1993; Rantakeisu et al., 1996; Backhans, 2003). They postulate different relations between unemployment and health/ill health. First, unemployment and ill health is an individual problem. Second, unemployment and ill health are consequences of above all environmental and financial conditions. Third, unemployment and ill health is coped with in different ways, depending on the individual's baseline of mental health, ability to be active and sense of coherence. However, profound theoretical discussions in empirical research are rather rare (Rantakeisu et al., 1996).

Problem areas and aims

An individual's relation to the labour market is probably one of the most essential components of a meaningful life. This is one of the reasons that research about labour market, labour market position, especially unemployment, is studied by many disciplines, e.g. economics, sociology, psychology, medicine, rehabilitation, public health. People's relation to employment affects self-reported health. Nowadays it is beyond dispute that the unemployed in general suffer worse health than the employed.

The main aim of this thesis is to describe and analyse self-reported QoL among unemployed people and people in work[12], in relation to two age groups (18-24, 25-64). A secondary aim is to identify the mediating and interacting variables in self-rated QoL. A third aim is to trace variables that predict unemployment in young ages (18-24).

[12] People 'in work' in this thesis: employed aged 25-64 and employed, students and in military service aged 18-24.

Aims of Study I

The first aim was to investigate whether unemployed people exhibit poorer self-rated QoL than employed subjects do. This aim is important, as QoL in unemployed people as a whole has not been investigated much, and also, in order to discover whether previous findings about health and well-being in unemployed people were still valid.

Second, study I examined particularly how the sociodemographic variables *gender*, *age*, *education*, *social network* and *cash margin* differ and interact with self-rated QoL among unemployed and employed people. To our knowledge, the examination of all these factors together has not been done previously, and thus new results are brought to the field of unemployment studies on health and QoL.

Aims of Study II

The first aim of study II was to investigate whether young unemployed people exhibit poorer self-rated QoL than young people in work.

Secondly, study II aimed at examining how self-rated QoL differs and interacts with the sociodemographic variables *gender, age, education, social network* and *cash margin* among the young unemployed and young people in work.

A third aim was to explore which QoL aspects and sociodemographic variables most strongly predict unemployment among young people.

Finally, we used data on the older age group (25-64) of unemployed people and/or people in employment measures the week preceding the response to the survey as a reference group to find out if there are any differences in self-rated QoL in comparison with the young unemployed (aged 18-24).

METHODS

The investigation in this thesis – quality of life and employment status – is based on the data collected in a public health survey - Life and Health – 1997 in northern Sweden (Jämtland, Västernorrland, Västerbotten and Norrbotten) (Björ & Malker, 1999). The aim of the survey was to obtain an epidemiological basis for health and health behaviours in the population, but also to identify salutogenic factors, as a basis for planning work in the health and medical services.

Three different questionnaires were used for the ages 18–24, 25-64, 65 and older respectively. This thesis used data from the age groups 18-24 and 25–64. The surveys included questions about health status, medical service and consumption of drugs, dental health, injuries and accidents, habits of life, safety, quality of life, social support and networks, housing, work and health, education, the future, personal questions to the individual, and questions to parents with children. Hörnquist's QoL scale was part of the questionnaires. The scale is described in detail in the section on Quality of Life, and also in the summary of the two studies below. The data used in this thesis is about work and QoL, education, social network and cash margin.

In the public health survey a stratified random sample was drawn from a population register and distributed in October 1997. After removal of deceased people, people abroad and people impossible to reach, a total of 22 031 questionnaires remained. The average response rate was 65%: 60% in the 18-24 age group, 64% in the 25-64 age group, and 69% among those who were 65 and older. The Swedish Data Inspection Board did not accept a dropout study concerning differences in background variables (gender, age and marital status). The internal dropout rates were on average 5 % (Björ & Malker, 1999).

Study I and II

Subjects

In both Study I and Study II we compared quality of life among people in work and people who were unemployed. The questionnaires were returned by 4149 subjects (64%) in the 25-64

age group (Study I), and by 3810 subjects (60%) in the 18-24 age group (Study II).[13]

In **Study I**, investigating the 25-64 age group, 2917 people were either employed, or worked in their own business and/or in farming[14]; 487 unemployed people had answered the question "How long have you been unemployed totally the last 5 years?". This question had three response alternatives: less than one year (29.6 % responded yes to this question), between one and three years (44.4 % responded yes) and more than three years (26.1 % responded yes). The reason for using this question was to certify that the study included a group of people who had experienced unemployment for a rather long period of time.

In **Study II,** investigating the 18-24 age group, the respondents reported their employment status.[15] Of all the people in work, 2802 had been either employed, or worked in their own business and/or in farming (37.1 %), were students (52.3 %) or in military service (5.8%). A small number (4.8 %) reported more than one occupation. As this group consisted of young people, it seemed reasonable to include students and young people in military service. The unemployed group, 651 individuals, also included those who were in employment measures (e.g. vocational training courses), which was not the case in study I. The reason for including the unemployed in employment measures in Study II was that this employment status was proportionately common in the young group (40% of the unemployed). The unemployed in Study I responded that they had been unemployed during the last 5 years, as discussed above, but did not indicate whether they were in employment measures.

The quality-of-life instrument

Hörnquist's Quality of Life, change and status, assessment strategy (the QLcs) used in the public health survey – Life and Health – was a modified mini core module of the original instrument. The Likert scale was modified from originally +3 across 0 to -3 to +2 across 0 to -2.[16] Moreover, we excluded the so-called 'dynamic version' (the ratings of 'How has your life changed in relation to 6 months ago?') because we argue that it is safer to measure changes over time using longitudinal data. Furthermore, the data from this part of the QLcs is

[13] For more details see Study I and II and Tables I.
[14] The week preceding the response to the survey
[15] The week preceding the response to the survey.
[16] Streiner and Norman (1995) showed that a change from 7 to 5 Likert points reduced the total variance by only 5 %.

somewhat outside the focus of the study. We used the nine items (operators in Hörnquist's scale) in our analysis of QoL responses.[17]

Sociodemographic variables

We investigated how QoL differed and interacted with sociodemographic variables among the unemployed and people in work. The same sociodemographic variables were applied in the age group 25-64 (Study I) and the age group 18-24 (Study II): *gender*, *age group*, *education* (participating in / completion of 3-4 years of upper secondary school or college/university, versus a shorter education), *social network* (regular leisure activities with other people during the last twelve months and 'somebody to have heart-to-heart talks with'), and *cash margin* (being able to get access to SEK 14 000 within a week).

Statistics

Standard statistical tests were used in both studies to analyse differences and interactions: chi-square test, t-tests and two-way ANOVAs. In Study II we also applied a logistic regression analysis to predict the risk of unemployment in young ages.

Ethical issues

The questionnaire in the population survey was approved by the Ethics Review Board at Umeå University (970909, register no. 97-244).

RESULTS

This section focuses on the results from both Studies I and II, differences in QoL between unemployed people and people in work, and differences between unemployed in the older age group (25-64) and the young age group (18-24). Secondly, I show the differences and

[17] 1) 'entire life', 2) somatic health, 3) mental well-being, 4) cognitive ability (the ability to think clearly and readily), 5) social life, 6) family life, 7) activity (the ability to keep up and be active), 8), financial situation, and 9) meaning in life. An additional composite average score was computed across 8 of the 9 items. The global score, "entire life" (item no. 1), was not weighed into the composite score.

interactions between unemployed people and those in work, in relation to gender, age group, education, social network and cash margin. Finally, I report which variables predicted unemployment among the young (18-24). Only significant differences are reported.

Main findings of QoL by employment status

Self-rated QoL was as expected lower for the unemployed, irrespective of if they were young (aged 18-24) or older (aged 25-64). The most prominent difference (in means) was found in the financial domain (Table 1). Moreover, in the final domain, meaning in life, there was a great difference between unemployed people and people in work, both in the age group 18-24 and 25-64; there was also a considerable difference in 'entire life' in the group aged 25-64. In the age group 18-24, social life was the third most important domain rated. The smallest difference (in means) between the unemployed and people in work was found in the domain of family life. The financial domain was the only domain that scored below zero, i.e. neither good nor poor, and in the direction of poor QoL (scale point -1) among the unemployed.

Another finding was that the older (aged 25-64) unemployed people rated mental well-being, cognitive ability, and financial situation higher than the younger unemployed (aged 18-24). The composite average score was also higher (see Study II, Fig. 2). The age group 18-24 did not rate any of the life domains higher than the age group unemployed 25-64.

Table1 Greatest and smallest differences in self-rated QoL by employment status and age groups (18-24, 25-64).

Greatest differences						Smallest differences				
		Means					Means			
	Life domain	Unemployed	In work	t-value	Sig.	Life domain	Unemployed	In work	t-value	Sig.
Study I 25-64	Financial situation	-0.16	0.61	-14.7	***	Family life	1.13	1.20	-1.65	*
	Meaning in life	0.79	1.04	-6.37	***	Activity	0.71	0.90	-3.93	***
	'Entire life'	0.80	1.05	-5.82	***	Cognitive ability	1.00	1.15	-4.01	***
Study II 18-24	Financial situation	-0.31	0.39	-14.11	***	Family life	1.06	1.18	-2.58	**
	Meaning in life	0.73	1.00	-7.17	***	Cognitive ability	0.90	1.09	-5.70	***
	Social life	0.86	1.11	-7.02	***	Activity	0.72	0.90	-6.13	***

Scale points: + 2 (very good) across 0 to -2 (very poor); * = p < 0.05, * * = p < 0.01, *** = p = 0.000; sig. (1-tailed)

QoL by employment status and sociodemographic variables[18]

Gender

Unemployed women (25-64) rated 'entire life' and meaning in life higher than unemployed men (Table 2). Unemployed young women (aged 18-24) did not rate any life domain higher than unemployed young men did, while men marked higher scores for somatic health and mental well-being.

Comparisons between people in work (aged 25-64) showed that women rated social life higher than men did, while men rated financial situation higher (Table 2). Among the young in work (aged 18-24) women gave higher ratings for final domains, i.e. meaning in life and 'entire life', but also for family life and social life. Young men rated somatic health, mental well-being, cognitive ability, activity and financial situation higher.

Table 2 Life domains with self-rated differences in gender among unemployed people and people in work.

	Significant higher score for:			
	Unemployed men	Unemployed women	Men in work	Women in work
Study I (25-64)		'Entire life'** Meaning in life*	Financial situation ***	Social life **
Study II (18-24)	Somatic health* Mental well-being*		Somatic health*** Mental well-being*** Cognitive ability* Activity* Financial situation*	Family life** 'Entire life'** Meaning in life** Social life *

* = p < 0.05, * * = p < 0.01, *** = p = 0.000; sig. (2-tailed)

[18] See also appendix II, tables including t-values.

Age groups

In both Study I (aged 25-64) and Study II (aged 18-24) it was the older respondents within the two groups (aged 21-24 and 45-64) that rated some QoL domains higher (Table 3). The unemployed group aged 45-64 rated financial situation and social life higher than the unemployed aged 25-44. Among the young unemployed, meaning in life was rated higher in the 21-24 age group than in the 18-20 age group. Among the employed, financial situation, social life, mental well-being and composite average score were rated higher in the 45-64 age group than in the 25-44 age group. Also, in the age group 18-24 in work, financial situation and the composite score were rated higher in the group aged 21-24 than in the group in work aged 18-20; moreover, the final domains of meaning in life, 'entire life' and family life were rated higher.

In line with the findings above, the unemployed aged 25-64 rated QoL in some life domains higher than the younger unemployed (aged 18-24) did (see Study II, Fig. 2).

Table 3 Life domains with self-rated differences in age groups among unemployed people and people in work.

	Significant higher score for:			
	Unemployed (25-44, 18-20)	Unemployed (45-64, 21-24)	In work (25-44, 18-20)	In work (45-64, 21-24)
Study I (25-64)		Financial situation **		Financial situation ***
		Social life *		Social life ***
				Mental well-being**
				Composite average score*
Study II (18-24)		Meaning in life*		Meaning in life***
				Family life ***
				Financial situation **
				Composite average score**
				'Entire life'*

* = p < 0.05, * * = p < 0.01, *** = p = 0.000; sig. (2-tailed)

Education

Education appears to be connected with better QoL in the age group 18-24 (Table 4). Among the unemployed this is shown for somatic health, composite average score and activity; and among the young in work, for cognitive ability and somatic health. In the unemployed group (aged 25-64) education was not related to QoL in any domain, but among people in employment those with a university/college degree rated QoL higher in several domains: meaning in life, somatic health, cognitive ability, financial situation and composite average score.

Table 4. Life domains with self-rated differences in education among unemployed people and people in work.

	Significant higher score for:			
	Unemployed with shorter education	Unemployed participating in/or completed upper secondary school or university/college	In work with shorter education	In work participating in/or completed upper secondary school or university/college
Study I (25-64)				Meaning in life*** Somatic health*** Cognitive ability** Financial situation ** Composite average score**
Study II (18-24)		Somatic health** Composite average score* Activity*		Cognitive ability* Somatic health*

* = p < 0.05, * * = p < 0.01, *** = p = 0.000; sig. (2-tailed)

Social network

Participation in regular leisure activities are generally associated with higher ratings in QoL domains, no matter whether the individual is unemployed or not, or whether s/he is young (aged 18-24) or not (aged 25-64) (Table 5). However, in the age group 18-24, regular leisure activities had no impact on the ratings of family life, or financial situation among the

unemployed. Similarly, in the unemployed group (aged 25-64), regular leisure activities did not affect the ratings of their financial situation.

Table 5 Life domains with self-rated differences in regular leisure activities among unemployed people and people in work.

	Significant higher score for:			
	Unemployed (yes)	Unemployed (no)	In work (yes)	In work (yes)
Study I (25-64)	Composite average score***		Activity***	
	Activity***		Composite average score***	
	Mental well-being***		‘Entire life’***	
	Somatic health**		Meaning in life***	
	Social life **		Somatic health***	
	‘Entire life’**		Social life ***	
	Meaning in life*		Cognitive ability***	
	Family life *		Mental well-being***	
	Cognitive ability*		Family life ***	
			Financial situation **	
Study II (18-24)	Activity***		Activity***	
	Composite average score***		Somatic health***	
	Somatic health***		Composite average score***	
	Social life **		Social life ***	
	‘Entire life’**		Cognitive ability***	
	Meaning in life**		‘Entire life’***	
	Cognitive ability**		Mental well-being***	
	Mental well-being*		Meaning in life***	
			Financial situation ***	

* = p < 0.05, * * = p < 0.01, *** = p = 0.000; sig. (2-tailed)

Subjects who had ‘somebody to have heart-to-heart talks with’ rated higher in all life domains (Table 6). There was however one exception: there was no influence on financial situation among the unemployed aged 18-24. The variable ‘somebody to have heart-to-heart talks with’, also seemed to be prominent in the perspective of the final domains (meaning in life and/or ‘entire life’).

Table 6 Life domains with self-rated differences in 'somebody to have heart-to-heart talks' with, among unemployed people and people in work.

	Significant higher score for:			
	Unemployed (yes)	Unemployed (no)	In work (yes)	In work (no)
Study I (25-64)	Composite average score***		Meaning in life***	
	'Entire life'***		Family life ***	
	Family life ***		'Entire life'***	
	Activity***		Composite average score***	
	Meaning in life***		Social life ***	
	Financial situation ***		Mental well-being***	
	Social life ***		Cognitive ability***	
	Mental well-being***		Activity***	
	Somatic health***		Somatic health***	
	Cognitive ability**		Financial situation **	
Study II (18-24)	Meaning in life***		Meaning in life***	
	Family life ***		'Entire life'***	
	Composite average score***		Composite average score***	
	Social life ***		Social life ***	
	'Entire life'***		Family life ***	
	Mental well-being**		Mental well-being***	
	Somatic health*		Activity***	
	Activity*		Somatic health***	
	Cognitive ability**		Cognitive ability***	
			Financial situation **	

* = p < 0.05, * * = p < 0.01, *** = p = 0.000; sig. (2-tailed)

Cash margin

Finally, having access to a cash margin, which means being able to get access to 14 000 SEK within a week, is vital in the ratings of all domains, especially the financial domain (Table 7). Moreover, living in a situation where it is possible to get financial support, also powerfully influences the composite average score in a positive direction in all four groups. However, ratings of family life are not as strongly related to cash margin, and among the unemployed people (aged 25-64), not at all related.

Table 7 Life domains with self-rated differences in cash margin among unemployed people and people in work.

	Significant higher score for:			
	Unemployed (yes)	Unemployed (no)	In work (yes)	In work (no)
Study I (25-64)	Financial situation ***		Financial situation ***	
	Composite average score***		Composite average score***	
	Mental well-being***		Meaning in life***	
	'Entire life'***		'Entire life'***	
	Activity***		Mental well-being***	
	Social life ***		Activity***	
	Somatic health**		Cognitive ability***	
	Meaning in life**		Somatic health***	
	Cognitive ability**		Social life **	
			Family life **	
Study II (18-24)	Financial situation ***		Financial situation ***	
	Composite average score***		Composite average score***	
	'Entire life'***		'Entire life'***	
	Somatic health***		Meaning in life***	
	Mental well-being***		Mental well-being***	
	Meaning in life***		Cognitive ability***	
	Activity**		Activity***	
	Social life **		Somatic health***	
	Cognitive ability*		Social life ***	
	Family life *		Family life ***	

* = $p < 0.05$, * * = $p < 0.01$, *** = $p = 0.000$; sig. (2-tailed)

Interaction effects by sociodemographic variables and employment status in QoL

In the group aged 18-24 an interaction effect was found between employment status and regular leisure activities concerning the rating of the life domain 'ability to keep up and be active' ($p < 0.05$). In other words, regardless of being in work or not, regular leisure activities is related to the ratings of the activity domain (see Study II, Fig. 1).

In the group aged 25-64 interaction effects were found for gender, education, somebody to talk to and cash margin with employment status and QoL variables. First, gender influenced the ratings of ‘entire life’, and being an unemployed male was the worst position (see Study I, Fig. 2). A university/college degree was related to higher ratings of meaning in life among the employed than among the unemployed (see Study I, Fig. 3). Thirdly, having ‘somebody to have heart-to-heart talks with’ interacted with employment status in the ratings of social life ($p < 0.05$), activity ($p< 0.01$), and financial situation ($p = 0.000$). It was also related to the composite average score ($p < 0.05$) and proportionately lower among the unemployed. Finally, cash margin and employment status interacted with the ratings of mental well-being, social life and activity ($p < 0.05$), the lowest ratings by the unemployed.

In conclusion, the activity domain – the ability to keep up and be active – was somewhat more sensitive to sociodemographic variables in relation to employment status than other life domains.

Predictors of unemployment

In the logistic regression we used unemployment/in work as dichotomous dependent variable and as independent variables the sociodemographic variables age, gender, education, social network, cash margin, and the QoL domain variables.

Factors predicting unemployment in the young population were: a short education, experience of poor finances, belonging to the group aged 21-24 rather than the 18-20 age group, being less active and having fewer contacts with other people. (See Study II, Table 6)

DISCUSSION

General

The two studies I and II supported the claim that being in work is better for health and QoL than being unemployed. However, except for the financial domain, also the unemployed rated all domains positively.[19] Why?

Five conceivable reasons are suggested: First, the rural culture[20] offers alternatives for employment that are not possible in the same way in urban areas, such as fishing, hunting and gardening/farming. An informal economy is often put in practice in these cultures with the exchange of favours such as carpentry work and painting: a kind of living that does not always distinguish work during leisure time from paid employment (Ronnby, 1991).

Secondly, in an international perspective, Sweden had comparatively beneficial social welfare systems, such as unemployment compensation, accommodation allowances and social allowances, during the time of the investigation (Backhans, 2003).

Thirdly, some researchers argue that those who participate in surveys are not the 'worst off' sample, rather the 'better off' and healthier sample (see e.g. Hennekens & Buring, 1987).

The fourth reason concerns a shift in the work ethic. Today's work ethic is probably of a more secularised type than the Protestant ethic described by Max Weber in 1934 (Weber, 1993), but with work still seen as a duty and an obligation that is central for an individual's living. It is also probable that the work ethic might have changed further among the young people. Only 69 % in a Swedish student sample in upper secondary school (median age 18) accounted for a strong or fairly strong work ethic (Axelsson, Andersson, Håkansson & Ejlertsson, 2005). The trend in the Scandinavian countries during the last two decades has been that the period before permanent establishment in working life has become longer (Axelsson et al., 2005). One of the reasons for this could perhaps be that young people want

[19] Closer to good (scale point +1) than neither good nor poor (scale point 0).
[20] In the 25-64 age group, 55.6% of the unemployed and 55.4% of those in work lived in municipalities with fewer than 15,000 inhabitants; the equivalents in the 18-24 age group were 57.9% and 54.9%. The towns included are surrounded by large rural areas.

to save money in temporary jobs in order to travel and see the world. Another reason could be the fact that getting into the Swedish labour market has not been so easy during the last few decades.[21] However, it should be noted that the unemployed rated their health and QoL, and especially their financial situation, significantly lower than those in work.

A final reason is the issue of self-reporting. There is a possibility of a social desirability bias among the unemployed that they report a little higher their well-being (Passer & Smith, 2004).

The influence of the sociodemographic variables

Unemployed women in the age group 25-64 rated the final domains of 'entire life' and meaning in life higher than the unemployed older men did. Traditionally, research has shown better well-being among unemployed women than among unemployed men (see e.g. Shamir, 1985), but also in a recent Spanish study (Artazcoz, Benach, Borrell & Cortès, 2004). An explanation for this finding has been that women were less committed to the work role and found substitutes in the family role, e.g. in taking care of children, elderly relatives and doing domestic work in general. Even Jahoda (1981), who argued that being unemployed means loss of 'ties to reality', points out domestic work as a possible functional alternative. Further, married women were less affected financially by unemployment (Shamir, 1985). However, in our studies women aged 18-24 rated somatic health and mental well-being lower than the men and not higher than the men in any of the domains. This could mean that women in the age group 18-24 were more affected by unemployment, in comparison with men aged 18-24. This result is supported by Axelsson et al. (2005), who found that young males, compared with young females[22], expressed more positive attitudes towards being unemployed and to improper use of the social welfare system; they also gave less priority to work as something important for a good life. Moreover, if we consider life domains as 'entire life' and meaning in life as more important indicators of QoL, it seems that being in work is valued higher among women in the age group 18-24 than among men at the same age.

The younger groups, in Study I (25-44) and in Study II (18-20), rated QoL lower than the older groups (Study I aged 45-64, Study II aged 20-21), although the differences within the

[21] From 2002 to 2005 the unemployed (aged 18-24) increased by 38.7%, from 32 994 individuals to 45 777 (arbetsförmedlingen-kundtjänst@ams.amv.se, 2006).
[22] Median age 18.

unemployed groups concerned fewer domains. This is, as far as we know, a new finding. A large number of people in the 25-44 age groups get married and settle down. This means a lot of responsibility and costs, newborn children and the need for accommodation, no matter whether they are employed or unemployed. The reasons for lower scores among the young in work (aged 18-20) could for instance be school fatigue among those still in school, worries about the future in general and legitimate worries about getting a job in a tough labour market situation. The reasons for higher values in the older group could be the reverse. It is plausible that more of the young (aged 21-24) in work have salaries, are financially independent from their parents and therefore more satisfied with their lives. Higher scores in the employed 45-64 age group could possibly be an effect of having settled down, regarding their financial situation and social network. Also, the majority of this age group does not need to provide for children any longer. Part of these effects could also characterize the unemployed people at the same age.

Being in upper secondary school (3-4 years) or in college/university or having a degree, influenced positively QoL ratings in the young group (aged 18-24). An equivalent education had no effect on the older unemployed (aged 25-64). On the contrary, an interaction effect showed that the unemployed with a university/college degree marked a lower score for meaning in life compared with unemployed people with a shorter education (see Study I, Fig. 3). In general the well-educated younger unemployed (aged 18-24), with higher ratings in somatic health, activity and the composite average score, might have a more hopeful view of the future. Some could be in the situation of recently having finished upper secondary school and planning for further education. It is possible that among the 31 unemployed (aged 25-44) with a university/college degree, there were some who were pessimistic, having invested a lot of effort in education, without credit for the time they had spent studying or the money they had spent. However, the comparison between the 18-24 and 25-64 age groups is complicated. In the age group 18-24, several individuals are still in education and the work relation is not yet one of secure employment.

Social networks were of great importance and raised the QoL in both groups (18-24, 25-64). However, among the unemployed in both groups, regular leisure activities had no effect on the ratings of the financial situation; neither did the family situation influence the unemployed and the ones in work in the age group 18-24. With somebody to confide in, the ratings were higher in all domains except for the unemployed (aged 18-24) in the financial domain. These

results show clearly that QoL is better if leisure activities are practised regularly and social contacts are kept up. Also, having 'somebody to have heart-to-heart talks with' is even more essential for the view of a good QoL.

It is hardly surprising that access to a cash margin is of outstanding importance in all groups. However, in the unemployed group (aged 25-64) cash margin had no effect on the rating of family life. Also in the other groups with access to cash margin, unemployed and in work (aged 18-24) and employed (aged 25-64), the ratings of family life were proportionately lower compared with those in other life domains. However, cash margin was of superior value for the ratings of the financial situation, but not so essential for the final domains of meaning in life and 'entire life'. 'Somebody to have heart-to-heart talks with' seemed to be more related to the final domains of QoL than cash margin.

How can theoretical models of the effects of unemployment/employment help us understand the results?

Many theories of the effects of unemployment/employment have not been tested empirically (Backhans, 2003). However, as demonstrated with the QoL instrument used here, it is possible to measure final values and instrumental indicators of QoL in relation to employment status. Based on the results of the two studies presented a number of hypotheses could be raised:

1) Being jobless was worse than being in work. However, as the ratings among the unemployed were positively skewed (except in the financial domain) and the standard deviations were larger in all domains among the unemployed people than among the people in work, the hypothesis is that there could be some who were satisfied with the unemployment. This is in line with Warr's vitamin model, which concluded that leaving a hard job could have positive effects (Warr, 1987). Also Antonovsky claimed that unemployment could be a positive turning point for some individuals (Antonovsky, 1987). Ezzy discussed unemployment as a process, and although unemployment is mostly considered as a divestment passage, the desirability of the passage could vary. For some, unemployment could be acceptable and include a period of growth (Ezzy, 1993). The reasons for possible

relief among the unemployed in our studies (I and II) could be different, e.g. getting time for yourself and doing whatever you wish. Moreover, as discussed above, the Nordic culture and geography offers a multitude of activities strengthened by the Legal Right of Common Access to land, which is unique for the Nordic countries (Nordiska ministerrådet, 1997:501).

2) For women (aged 18-24), employment was as important as for men at the same age, which is a rather new finding, although it has been reported in a few previous studies (see e.g. Nordenmark, 1999). To fulfil the psychological needs of employment, e.g. salary, contacts outside the nuclear family, activities forced by employment (Jahoda, 1981), opportunity to use skills or valued social position, argued by Warr (1985), another hypothesis is that the majority of women in the Nordic countries during the last decades consider paid employment to be as important as men do. This is based on a desire for independence, but also for single women to earn a living (see e.g. Warr, 1985).

3) The unemployed age group 45-64 scored higher the financial and social life domains than the group aged 25-44. This result could possibly be explained by the status passage theory, which emphasizes the interaction between the self and society (Ezzy, 1993). This thinking is also in line with the co-evolution hypothesis which stresses the interplay between health and social circumstances (Vågerö, 1995). Job loss is in general a divestment passage. However, the passage of job loss is a process on a continuum and the desirability of the passage can vary. In the same way, the age of the individual in a 'passage' could have different effects. Being older (aged 45-64) could mean that the experience of unemployment is less threatening than for a person in the age group 25-44. An individual aged 45-64 might have reached a social position, and has a more or less stable identity. Moreover, unemployment compensation for persons aged 45-64 is perhaps in general higher than for the group 25-44, because the compensation in Sweden is founded on the salary at the time for unemployment. Also, as discussed before, the age group 45-64 might have fewer expenses compared with the group 25-44.

4) The unemployed (aged 25-64) with a university education rated meaning in life lower than the unemployed with a shorter education. Previous studies have reported positive relations between higher education and subjective well-being in random samples (see e.g. Lu, 1995). However, the lower ratings of QoL among people who have invested time and money in education and then were unemployed are perhaps not surprising. On the other hand,

according to Fryer who preferred to see the individual as an active social agent, it should be possible among the higher educated to make sense of the situation and reach their chosen goals in the long run (Fryer & Payne, 1984). This is also in line with Antonovsky, who argued that education is a predictor for strong SOC, and with a strong SOC a person is more likely to cope successfully with stressors (Antonovsky, 1987). In conclusion, our results about those with a university education are possible to explain, but do not agree with existing theories among the well educated older unemployed (25-64).

5) Finally, social networks and a financial base were basic to QoL, and especially someone to confide in was essential for an overall QoL in our studies. This is a common finding also in other research (see e.g. Baxter et al., 1998; Starrin et al., 1997).

Methodological considerations

The advantage of the studies in this thesis is that a broad QoL instrument was used to measure both 'entire life' and different sub-domains of life among unemployed people and people in work. The instrument used has solid psychometric properties and both shorter and longer versions are available (Hörnquist, 1989). In this thesis a shorter version was applied. The study design was cross-sectional, which limits the possibility of drawing causal inferences. However, there is reason to assume that being unemployed is neither good for health nor QoL, as this is in line with the existing body of earlier research. Also, re-employment has indicated better health and especially mental health (see e.g. Claussen, 1999). Furthermore worse health among long-term unemployed people is found, e.g. in terms of psychological distress (Warr, 1985), blood pressure (Janlert, 1992), mortality (Wilson & Walker, 1993), mental well-being (Björklund & Eriksson, 1998) and of the total subjective evaluation of QoL (Buchtová, 2004). A shortcoming is that the data set is almost a decade old. Until recently there have however been no major changes in the Swedish unemployment rates and therefore no sound reason to believe that the data is not approximately representative also for the current time period. This does not rule out the individually increased risk of unemployment and bad health (see e.g. Janlert, 1997). We have no data on whether the dropouts differ from the respondents with respect to basic variables such as age, gender etc. There is reason to believe that those who participate in studies of this kind are generally not the 'worst off' sample (see e.g. Hennekens & Buring, 1987), which means that ratings may be

positively skewed. Taking this into account and the exception of densely populated or metropolitan areas it seems not completely impossible to generalize the QoL ratings to the other Nordic countries. Biases related to self-reporting have been discussed in the literature. However, a sufficient reliability of self-reporting questionnaires to predict future health and mortality has been shown in previous research (see e.g. Möller, Kristensen & Hollnagel, 1996).

Conclusion

The main results were: First, unemployed people reported worse QoL than people in work. Also, the unemployed (aged 18-24) rated QoL lower in comparison with unemployed people (aged 25-64) from the same survey. A possible interpretation for this could be that being young and unemployed is more severe than being older and unemployed. Second, the differences between unemployed people and those in work were examined over a broader domain of life. Third, unemployed men (aged 25-64) reported poorer QoL than unemployed women of 'entire life' and meaning in life. Among the young (aged 18-24), unemployed men rated somatic health and mental well-being higher than unemployed women, who did not rate any domain higher. In addition, young women in work rated 'entire life' and meaning in life higher than their male counterparts. This is a new finding, but in agreement with current studies by Axelsson et al. (2005), who reported more positive attitudes among young men towards being voluntarily unemployed, and Nordenmark (1999) who reported employment commitment at least as high among young women as among young men. Fourth, having a university or college degree was not an advantage among the older unemployed people (aged 25-64), which is also a new finding. Fifth, having a close social network and a financial base was a basic prerequisite for QoL, irrespective of employment status.

To achieve a richer understanding of being unemployed and its context it would be beneficial to combine the cross-sectional studies in this thesis with case studies of single individuals in the different groups we compared. Further studies of employment status and QoL would also benefit from using urban samples to find out whether the rural community has a greater resistance to breakdown in unemployment than the urban community, as was, at least to some extent shown here. Finally, research on improved labour market conditions that

could counteract the negative effects on health and QoL of the exclusion from the labour market are of great importance. Such research should also include finding protective measures for vulnerable groups.

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REFERENCES

Antonovsky, A. (1987). *Unraveling the Mystery of Health.* San Francisco: Jossey-Bass Inc Publishers

Antonovsky, A. (1993). The structure and properties of the sense of coherence scale. *Soc. Sci. Med.*, 36,(6), 725-733.

Antonovsky, A. (1996). The salutogenic model as a theory to guide health promotion. *Health promotion International*, 11, (1), 11-18.

arbetsförmedlingen-kundtjänst@ams.amv.se (National Labour Market Board). (2006).

arbetsförmedlingen-kundtjänst@ams.amv.se (National Labour Market Board). (2007, January, 19).

Artazcoz, L., Benach, J., Borrell, C., & Cortès, I. (2004). Unemployment and mental health: Understanding the interactions among gender, family roles, and social class. *American Journal of Public Health*, 94, (1). 82-88.

Axelsson, L., Andersson, I., Håkansson, A., & Ejlertsson, G. (2005). Work ethics and general work attitudes are related to quality of life, sense of coherence and subjective health – a Swedish questionnaire study. *BMC Public Health*, 5:103, 1-10.

Backhans, M. (2003). Arbetsmarknadsposition och hälsa. In Hogstedt (Ed.), *Välfärd, jämlikhet och folkhälsa* (pp. 114 – 132). Stockholm: Statens Folkhälsoinstitut 2003:12.

Baum, F. (2003). *The New Public Health* (2nd ed.). Oxford: Oxford University Press.

Baxter, J., Shetterly, S-M., Eby, C., Mason, L., Cortese, C-F., & Hamman, R-F. (1998). Social network factors associated with perceived quality of life: The San Luis Valley Health and Aging Study. *Journal of Aging and Health*, Aug, 10 (3) 287-310.

Björ, O., & Malker, B. (1999). *Liv och Hälsa - Befolkningsundersökningen i Norrland* (Life and Health – A population study in the counties of northern Sweden), Epidemiologiska enheterna i Västernorrland, Jämtland, Västerbotten och Norrbotten, Teknisk rapport, Rapportserie 6.

Björklund, A., & Eriksson, T. (1998). Unemployment and mental health: evidence from research in the Nordic countries. *Scand J Soc Welfare*, 7, 219-235.

Blaxter, M. (1990). *Health and lifestyle.* London; New York: Tavistock/Routledge.

Bowling, A. (2005). *Measuring Health: A review of quality of life measurement scale.* Glasgow: Bell & Bain Ltd.

Browne, J.P., O'Boyle, C.A., McGee, H.M., McDonald, N.J., & Joyce, C.R. B. (1997). Development of a direct weighting procedure for quality of life domains. *Quality of Life Research*, 6: 301-309.

Brülde, B. (2003). *Teorier om livskvalitet* (*Theories about Quality of Life*). Lund: Studentlitteratur.

Buchtová, B. (2004). Quality of life of long-time unemployed. *Ceskoslovenska Psychologie,* 48 (2), 121-135.

Båvner, P. (2001). *Half full or half empty?: Part-time work and well-being among Swedish women.* Stockholm: Stockholm University.

Claussen, B. (1999). Health and re-employment in a five-year follow-up of long-term unemployed. *Scandinavian Journal of Public Health,* 2, 94 -100.

Due, E.P., & Holstein, B. (1998). Sense of Coherence, socialgruppe og helbred i en dansk befolkningsundersogelse. *Ugeskrift for laeger,* 160, (51), 7424-7429.

Eisenberg, P., & Lazarsfeld, P.F. (1938). The psychological effects of unemployment. *Psychological Bulletin,* 35, 358-390.

Erixon, L. (red) (2003). *Den svenska modellens ekonomiska politik – Rehn-Meidner modellens bakgrund, tillämpning och relevans i det 21 århundradet.* Stockholm: Atlas Akademi.

Ezzy, D. (1993). Unemployment and mental health: A critical review. *Soc. Sci. Med.*, 37 (1), 41-52.

Feldt, T., Leskinen, E., & Kinnunen, U. (2005). Structural invariance and stability of sense of coherence: A longitudinal analysis of two groups with different employment experiences. *Work and Stress,* 19(1): 68-83.

Fryer, D., & Payne, R. (1984). Proactive behaviour in unemployment: findings and implications. *Leisure Studies,* 3**,** 273-295.

Hallsten, L. (1997). Arbetslöshet och psykisk ohälsa 1980-1996 – en metaanalys (Unemployment and mental ill health 1980-1996 – a meta-analysis). *Arbete och hälsa,* Arbetslivsinstitutet, 28, 1-38.

Hammarström, A. (1994). Health Consequences of Youth Unemployment. *Public Health,* 108, 403-412.

Hanse, J.J., & Engström, T. (1999). Sense of coherence and ill health among the unemployed and re-employed after closure of an assembly plant. *Work and Stress,* 13, 202-222.

Hogstedt, C. (2003). Introduktion. In Hogstedt (Ed.), *Välfärd, jämlikhet och folkhälsa* (pp. 21 – 26). Stockholm: Statens Folkhälsoinstitut 2003:12.

Hennekens, C.H., & Buring, J. E. (1987). *Epidemiology in Medicine* (pp. 171-172). Boston/Toronto: Little Brown and Company.

Häyry, M. (1995). Livskvalitet och beslutsfattande inom hälsovården (Quality of life and decision-making in the health care system). In K. Klockars & B. Österman (Eds.), *Begrepp om hälsa. Filosofiska och etiska perspektiv på livskvalitet, hälsa och vård* (Concepts of health. Philosophical and ethical perspectives on quality of life, health and care) (pp. 140-155). Stockholm: Liber Utbildning.

Hörnquist, J.O. (1989). Quality of life: concept and assessment. *Scandinavian Journal of Social Medicine*, 18, 69-79.

Hörnquist, JO., Wikby, A., Hansson, B., & Andersson, P.O. (1993). Quality of life: status and change (QLsc) reliability, validity and sensitivity of a generic assessment approach tailored for diabetes. *Quality of Life Research*, 2, 263 - 279.

Iversen, L., Andersen, O., Andersen, PK., Christoffersen, K., & Keiding, N. (1987). Unemployment and mortality in Denmark, 1970-1980. *BMJ*, 295:879-884.

Jahoda, M., Lazarsfeld, P., & Zeisel, H. (1971). *Marienthal, The Sociography of an Unemployed Community.* London: Tavistock, first published in 1933.

Jahoda, M. (1981). Work, Employment, and Unemployment: Values, Theories, and Approaches in Social Research. *American Psychologist*, 36, (2), 184 -191.

Jahoda, M. (1982). *Employment and unemployment: A social-psychological analysis.* Cambridge: University Press.

Janlert, U. (1992). Unemployment and blood pressure in Swedish building labourers. *Journal of Internal medicine*, 231 (3): 241-246.

Janlert, U. (1997). Unemployment as a disease and diseases of the unemployed. *Scand J Work Environ Health*, 23 suppl 3:79-83.

Janlert, U. (2000). *Folkhälsovetenskapligt lexikon*. Stockholm: Natur och Kultur

Kamper- Jørgensen, F. (2004). Nationale folkesundshedsprogrammer i de nordiske lande. *Ugeskr laeger*, 166/14, 29 Marts 2004.

Lange, C., & Lampert, T. (2005). The health of unemployed women and men. First results of the Telephone Health Survey 2003. *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz.* Nov; 48, (11), 1256-1264.

Lu, L. (1995). The relationship between subjective well-being and psychosocial variables in Taiwan. *Journal of Social Psychology*, Jun, 135 (3) 351-357.

Maslic Sersic D., Sverko, B., & Galesic, M. (2005). Unemployment and dimensions of subjective health: Exploring moderating effects of age. *Studia Psychologica,* 47(3), 221- 234.

Merton, R. (1968). *Social Theory and Social Structure* (enlarged edition). New York: Free Press

Möller, L., Kristensen, T.S., & Hollnagel, H. (1996). Self-rated health as a predictor of coronary heart disease in Copenhagen, Denmark. *Journal of Epidemiology and Community Health,* 50, 423-428.

Naidoo, J., & Wills, J. (2000). *Health Promotion: Foundations for Practice* (2nd ed.). NewYork; Edinburgh: Baillere.

Nordenmark, M. (1999).Employment commitment and psychological well-being among unemployed men and women, *Acta Sociologica*, 42 (2), 135-146.

Nordiska ministerrådet (1997:501). *Allemansrätten i Norden.(The Legal Right of Common Access to Land in the Nordic Countries)*

OECD (Organization for Economic Co-operation and Development): Employment Outlook 2004, pp. 293, 294, 296; Employment Outlook 2006, pp. 248, 250.

Passer, M.W., & Smith, R.E. (2004). *Psychology: the science of mind and behavior.* New York: McGraw-Hill.

Pellmer, K., & Wramner, B. (2001). *Grundläggande folkhälsovetenskap.* Stockholm: Liber AB

Rantakeisu, U., Starrin, B., & Hagquist, C. (1996). *Ungdomsarbetslöshet Vardagsliv och samhälle (Youth unemployment Everyday life and society)* (pp.109-128). Lund: Studentlitteratur.

Regeringens proposition 2002/03:35. *Mål för folkhälsan.* Stockholm: Riksdagens tryckeriexpedition.

Rokne Hanestad, B. (1993). Livskvalitet knyttet til sykepleiepraksis og forskning – noen utfordringer (Quality of life linked to nursing clinics and research – some challenges). *Vård i Norden*, 13, (3), 11-15.

Ronnby, A. (1991). *I skogarnas land. Om socialt arbete i glesbygd* (*In the land of forests. Social work in rural areas*), Statens råd för byggnadsforskning, Stockholm: Ljunglöfs Offset AB. pp. 149-159.

Rose, G. (1985). Sick individuals and sick populations. *International Journal of Epidemiology*, 14(1):32-38.

Shamir, B. (1985). Sex differences in psychological adjustment to unemployment and reemployment: A question of commitment, alternatives or finance. *Social-Problems*, 33 (1), 67-69.

Starrin, B., Rantakeisu, U., & Hagquist, C. (1997). In the wake of recession – economic hardship, shame and social disintegration. *Scand J Work Environ Health*, 23 (4), pp.47-54.

Starrin, B., Jönsson, L., & Rantakeisu, U. (2001). Sense of coherence during unemployment. *Int J Soc Welfare*, 10, 107-116.

Stefansson, C-G. (1991). Long-term unemployment and mortality in Sweden, 1980-1986. *Social Science and medicine*, 32 (4), 412-424.

Strandh, M. (2001). State intervention and mental well-being among the unemployed. *Journal of Social Policy*, 30:57-80

Streiner, D.L., & Norman, G.R. (1995). *Health measurement scales: A practical guide to their development and use.* 2nd ed. Oxford: Oxford University Press, cop.

Sullivan, M., Karlsson, J., & Ware JR, J.E. (1995). The Swedish SF-36 health survey-I. Evaluation of data quality, scaling assumptions, reliability and construct validity across general populations in Sweden. *Soc. Sci. Med.*, 41 (10), 1349-1358.

Theorell, T. (2002). Nygammalt om stress – gamla begrepp visar sig vara slitstarka. *Incitament*, (1), 8-12.

Tiffany, D., Cowan, J., & Tiffany, P. (1970). *The unemployed, A Social Psychological Portrait*. Prentice Hall: Englewood Cliffs, NJ

Vallgårda, S. (2007). Public health policies: A Scandinavian model? *Scandinavian Journal of Public Health*, 35: 205-211

Warr, P. (1985). Twelve questions about unemployment and health. In R. Roberts, R. Finnegan , & D.Gallie (Eds), *New approach to economic life* (pp. 302-318). Manchester: Manchester University Press.

Warr, P. (1987). *Work, Unemployment and Mental Health*. Oxford: Clarendon Press.

Weber, M. (1993). *Den protestantiska etiken och kaptalismens anda* (The Protestant ethic and the spirit of capitalism) (pp. 45-60). (First published in 1934). Lund: Grahns boktryckeri.

WHOQOL Group (1998a). The World Health Organization Quality of Life Assessment (WHOQOL): development and general psychometric properties. *Social Science and Medicine*, 46: 1569-1585.

WHOQOL Group (1998b). Development of the World Health Organization WHOQOL-BREF Quality of Life Assessment. *Psychological medicine*, 79: 1-20.

Wilson, S.H., & Walker, G.M. (1993). Unemployment and health: A review. *Public Health*, 107, 153-162.

World Health Organisation. (1948). *Constitution.* Geneva: World Health Organisation.

Vågerö, D., & Illsley, R. (1995). Explaining health inequalities: beyond Black and Barker. A discussion of some issues emerging in the decade following the Black Report. *European Sociological Review*, 11,(3), 219-241.

Ytterdahl, T., & Fugelli, P. (2000). Health and quality of life among long-term unemployed. *Tidsskrift for Norsk Laegeforening*, 120, 1308-11.

Appendix I

Table 1. Summary of theoretical models of unemployment/employment.

Theoretical models of unemployment/ employment	Individual problem	Environ-mental problem	A relief for a minority	Profits and losses	Effects depends on	Operational research yes/no
Rehabilitation approach	Psychologically disabled	Neglect social roots			Rehabilitation	?
Jahoda's functional model	Psychological needs fulfilled in employment	Yes	No	Salary, time structure, contacts with people outside the nuclear family, goals that transcend their own, employment forces activity	'Ties to reality' = employment	Seldom
Warr's vitamin model	The nine features (vitamins) decide mental health	Yes	Yes	Opportunity of control opportunity of skill use, externally generated goals, variety, environmental clarity, money, physical security, interpersonal contact, valued social position	Lack of vitamins; base line mental health (relatively stable but open to change)	Seldom
Fryer's agency critique	Agent proactive or not	Neglect restrictions in the external conditions	Yes	The financial situation could have a checking effect to reach goals		?
Status passage theory (Ezzy, 1993)	A process. An integrative/divestment passage on a continuum. Variation in consequences from time to time		Could be a period of growth	Unemployment mostly a divestment passage with loss of influence, self-esteeem and so on	The effect on mental health a product of the meanings given by an individual to employment	Does not include a systematic analysis method
Financial hardship and shame	Yes	Yes	Yes (Rantakeisu, et al., 1996)	Shortage of money, self-esteem, health	Unemployment benefits	Yes (e.g. Strandh, 2001)
Stress theory (Passer & Smith, 2004)	Cognitive, emotional, physiological, behavioural	Between the environment and the person		Good and bad stressors	The balance between demands and resources; duration	Yes e.g. blood-pressure (Janlert, 1992), cortisol
Sense of coherence (SOC) (Antonovsky, 1987)	An individual with strong SOC finds strategies to cope unemployment	A person with strong SOC does not see her/himself as incompetent, rather the management of the concern	Could be a positive turning point for some	E.g. money	SOC, relatively ultimate in adulthood	Yes the SOC scale
Studies I and II	Different for men and women, young and older	The culture in rural areas could be a help	Could be positive for some	Worse QoL in unemployment	Age,education, social network, cash margin	Yes the QLcs instrument

Appendix II

Table 2. Life domains with significant self-rated differences in gender, age groups and education among unemployed people and people in work. T-values.

Significant higher score for:													
		GENDER				AGE GROUPS				EDUCATION			
	Lifedomain	Unemployed men	Unemployed women	Men in work	Women in work	Unemployed 25-44, 18-20	Unemployed 45-64, 21-24	In work 25-44, 18-20	In work 45-64, 21-24	Unemployed shorter education	Unemployed longer education	In work shorter education	In work longer education
Study I 25-64	'entire life'		- 2.59**										
	somatic health												3.62***
	mental well-being								3.06**				
	cognitive ability												3.32**
	social life				-2.73**		2.06*		3.85***				
	family life												
	activity												
	financial situation			3.68***			2.61**		5.77***				3.32**
	meaning in life		-2.08*										4.02***
	composite average score								2.12*				2.80**
Study II 18-24	'entire life'				-2.93**				2.56*				
	somatic health	1.98*		5.00***							2.62**		2.43*
	mental well-being	1.98*		3.53***									
	cognitive ability			2.56*									2.45*
	social life				-2.22*								
	family life				-3.34 **				3.98***				
	activity			2.55*							2.32*		
	financial situation			2.24*					3.20**				
	meaning in life				-2.65**		2.18*		4.03***				
	composite average score								2.86**		2.52*		

* = p> 0.05, ** = p < 0.01, *** = p = 0.000; sig. (2-tailed)

Table 3. Life domains with significant self-rated differences in social network and cash margin among unemployed people and people in work. T-values.

Significant higher score for:													
		REGULAR LEISURE ACTIVITIES				'SOMEBODY TO HAVE HEART-TO-HEART TALKS WITH'				CASH MARGIN			
	Lifedomain	Unemployed yes	Unemployed no	In work yes	In work no	Unemployed yes	Unemployed no	In work yes	In work no	Unemployed yes	Unemployed no	In work yes	In work no
Study I 25-64	'entire life'	3.29**		8.69***		5.99***		11.30***		4.29***		5.07***	
	somatic health	3.43**		7.89***		3.68***		5.48***		3.49***		3.54***	
	mental well-being	3.58***		5.90***		4.64***		9.25***		4.51***		3.83***	
	cognitive ability	2.14*		6.60***		3.57***		7.61***		3.24***		3.61***	
	social life	3.35**		7.56***		4.89***		10.00***		3.69***		2.55*	
	family life	2.41*		4.42***		5.71***		11.45***				2.08*	
	activity	4.17***		8.98***		5.04***		7.16***		4.23***		3.65***	
	financial situation			2.79**		4.94***		3.22**		7.62***		16.14***	
	meaning in life	2.53*		8.54***		4.94***		13.63***		3.25***		5.38***	
	composite average score	4.22***		8.74***		6.52***		11.24***		5.78***		7.79***	
Study II 18-24	'entire life'	2.96**		5.70***		4.55***		10.23***		5.18***		8.36***	
	somatic health	4.53***		9.13***		2.25*		5.73***		4.46***		5.50***	
	mental well-being	2.12*		4.96***		3.20**		6.81***		4.06***		6.28***	
	cognitive ability	2.88**		5. 78*		2.15*		4.97***		2.34*		6.13***	
	social life	3.42**		7.55***		4.58***		8.92***		2.72**		4.49***	
	family life					5.20***		8.85***		2.33*		4.22***	
	activity	7.50***		11.03***		2.21*		5.75***		2.98**		5.60***	
	financial situation			3.62***				3.36**		6.69***		14.74***	
	meaning in life	2.93**		3.99***		5.90***		10.47***		3.52***		7.06***	
	composite average score	4.63***		8.97***		4.91***		9.66***		5.87***		9.80***	

* = p> 0.05, ** = p < 0.01, *** = p = 0.000; sig. (2-tailed)

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Quality of life among unemployed and employed people in northern Sweden. Are there any differences?

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Abstract. This study analysed self-assessed quality of life (QoL), using a QoL questionnaire (Hörnquist's QLcs) covering the life spheres, somatic health, mental well-being, cognitive ability, social and family life, activity, financial situation, meaning in life and a global score "entire life", in 487 unemployed subjects and 2917 employed subjects aged 25–64, in a population-based cross-sectional study in northern Sweden. In line with previous findings, results showed that unemployed people exhibited poorer QoL. Unemployed women scored higher in existential life domains than unemployed men did. Unemployed men were worst off in terms of general life situation. Employed respondents benefited in QoL by a university/college education, while unemployed respondents with a university/college education did not. Close social relations and money reserve were associated with higher QoL generally. It was concluded that further research is needed to differentiate various aspects of QoL and unemployment, and to compare with other samples.

1. Introduction

Since the 1930s research has shown that unemployment has an adverse effect on mental health and well-being [6,11,21,39,40,49,51–53]. Also, the evidence that unemployment leads to physical illness is now rather clear [14,31,51]. Jahoda [19], among others, has contributed to and deepened our understanding of the psychological meaning of work, arguing that being employed or having a job is beneficial to people's well-being. She has even proposed that a miserable job is preferable to no job at all. In line with others, Starrin [43] found that feelings of shame and humiliation were frequent among the unemployed. However, other researchers have shown that for a small group of people it appears that unemployment can be beneficial [39,42]. In these and other studies, it is argued that some people's health improves because they have escaped from an unsatisfactory employment that caused bad health [42,49]. Furthermore, for some individuals there could be positive aspects of being unemployed. Such individuals are characterised by independence, pro-activity and a desire to achieve goals in line with their own values [9].

From a gender perspective, it appears that the psychological effects of unemployment among women are generally less severe than among men [5,21,46,51,53]. However, for single women, and women who are the principal wage earners [49], or younger women [29], the negative impact of unemployment is similar to that experienced by men.

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The focus in the present work is on the difference in quality of life between unemployed and employed subjects. This means that we attempt to analyse both physical and psychological aspects of health or rather the global measure of quality of life. Previous studies have been restricted, in that they have investigated mainly psychological aspects of unemployment and rarely quality of life aspects, encompassing also physical and other aspects of life.

1.1. Quality of Life (*QoL*)

Despite the fact that *Quality of Life* has been used in many studies and in different disciplines, there is still no common definition [24]. QoL as a concept in research was introduced around 1960 when a quantitative measure of public welfare arose [36]. It appeared in different indices at the end of the 1970s and is today found in the social sciences, as well as in medicine and the nursing sciences [35]. In the Nordic countries, Allardt [1] was one of the researchers who introduced QoL in a study about welfare. In addition to measuring welfare, health is often considered as one part of QoL [24]. According to Rokne Hanestad [32] the measure encompasses subjective well-being and happiness, perceived coping with daily living, satisfaction of demands, functional ability and meaning in life.

In this study we use a QoL instrument by Hörnquist, which aims at covering all the main aspects of human life, that is somatic/biological, psychological, social, activity, material and structural spheres [16,17]. We argue that these aspects are all important to people whether they have a job or not. By using this QoL instrument, it is possible for us to measure both psychological, physical and other aspects of well-being in employed and unemployed subjects.

1.2. Unemployment

Sinclair [38] defined unemployment as the condition of being out of work, where work means paid employment. However, many individuals can be productive for instance by carrying out domestic labour activities. Others could be employed part-time and/or can be unemployed occasionally. In Sweden, as in many other countries, there is also a group of people taking part in labour market policy measures, either actively (training and education) or passively (cash handouts) [30].

Because the unemployment situation is so varied in terms of differences in welfare benefits, traditional levels of unemployment, cultural norms, availability of free health care services, social support and so on, it is not a simple task to compare statistics and outcomes between countries. However, in most literature of the Western countries and generally, unemployment is reported to have negative physical, psychological, social and financial consequences for individuals [10,43,51].

1.3. Aims

The aim is first to investigate whether unemployed people exhibit poorer self-rated QoL than employed subjects do. This aim is important, as QoL in unemployed people as a whole has not been investigated to any great extent, and also, in order to discover whether previous findings about health and well-being in unemployed people are still valid.

Second, this study examines particularly how the sociodemographic variables *gender, age, education, social network* and *cash margin* differ and interact with self-rated QoL among the unemployed and employed. This has not previously been done and brings new results to the field of unemployment studies.

1.4. Subjects and methods

The Departments for Public Health and Community Medicine in the four most northern counties in Sweden sent a questionnaire with questions about life and health (e.g. health status, injuries, habits of life, QoL, social networks, housing, work and health) to 22,418 people, aged 18 and older, in October 1997. The total sample was stratified by municipality and age group (18–24, 25–64, $>$ 65) with a randomised design within age groups [4]. As unemployment among young people is often described separately, the chosen population in this study is limited to the age group 25–64. The target sample comprised 6449 subjects and 4149 people (64%) returned the questionnaire. [1]

[1] The unemployment ratio was fairly low (1.5–3.5%) in the 1970s and 1980s in Sweden, compared with many other countries in Europe, but increased in the beginning of the 1990s. In 1997, when the study was made, it was 7.1% (men 7.5%, women 6.8%) for the age group 25–64, (14.4% for the age group 16–24), and in northern Sweden 7.9% [43,44].

Table 1
Comparison of unemployed and employed subjects, aged 25–64, by demographic characteristics

Demographic characteristics	Unemployed ($n = 487$)	Employed ($n = 2917$)
1) Gender (%)		
men	49.3	48.8
women	50.7	51.2
2) Age (mean)**	42.5	44.5
3) Living alone (%) **	19.4	13.3
4) Education (%)**		
comprehensive school	31.8	27.0
upper secondary school or vocational training 1–2 years	39.2	33.7
upper secondary school or equivalent 3–4 years	21.4	17.1
degree from university or college	7.6	22.2
5) Residential area (%)		
rural municipality $<$ 15,000 inh.	55.6	55.4

1) Chi-square (1, 3404) $= 0.04$, $p < 0.85$, 2) Chi-square (3, 3404) $= 62.00$, $p < 0.01$ (age groups 25–34, 35–44, 45–54, 55–64), 3) Chi-square (1, 3368) $= 12.53$, $p < 0.01$, 4) Chi-square (3, 3181) $= 51.72$, $p < 0.01$, 5) Chi-square (1, 3404) $= 0.01$, $p < 0.92$.

1.5. Description of the subjects

After elimination of people who overlapped in the response categories, e.g. some had reported both employment and unemployment, there were 2917 who had been employed (including people with their own business and farmers) and 487 who had been unemployed during the week before the questionnaire was sent out. The unemployed, 14.3% of the labour force (employed and unemployed) in the study population, had been unemployed for less than one year (29.6%), between one and three years (44.4%) and more than three years (26.1%). Compared with the employed, the unemployed were somewhat younger, more often lived alone and proportionately fewer of them had a degree from college or university (Table 1).

1.6. The quality of life instrument

Sections 34–36 in the population survey, comprised Hörnquist's modified mini core module of the Quality of Life, change and status, assessment strategy [16–18]. The module consists of 9 life-domain change (in relation to 6 months ago) and 9 parallel status (present situation) operators. In this paper only the present situation operators were used. The subjects were asked to estimate "How is your life nowadays?" (very good, good, neither good nor poor, poor, very poor). The self-ratings were scored on a Likert scale from $+2$ across 0 to -2 assuming interval level. The 9 operators consisted of 9 items: 1) "entire life", 2) somatic health, 3) mental well-being, 4) cognitive ability, 5) social life, 6) family life, 7) activity, 8), financial situation, and 9) meaning in life. An additional composite average score was computed across 8 of the 9 items. The global score, "entire life" (item no. 1), was not weighed into that composite score.

The quality of life instrument used here is in Scandinavia a rather well-known instrument, which has been used in different versions in a number of studies including various patients (e.g. alcohol abusers, angina pectoris patients, somatically disabled), unemployed and student groups. It has been psychometrically tested and being found reliable with regard to internal consistency and parallellity, discriminatively valid, prognostically valid as well as conceptually and convergently valid. Finally, it has been shown to be sensitive to changes in well-being over longer as well as shorter periods of time [16–18].

1.7. Sociodemographic variables

Chosen variables in this study were gender, age group (25–44, 45–64), education (university/college graduates versus those with a shorter education, see Table 1), social network (regular leisure activities with other people (yes/no) and somebody to have heart-to-heart talks with (yes/no)) and cash margin (ability to get access to US$ 1,750 within a week (yes/no)).

1.8. Statistics

The Chi-square test was used to determine differences in demographic characteristics between unemployed and employed subjects. Independent samples t-test and two-way ANOVAs (analysis of variance) assuming interval scales were used to determine differences between mean values in QoL of unemployed and

employed people, including different sociodemographic variables, and to investigate interaction effects.[2] P-values less than 5% were regarded as statistically significant, and marked traditionally as < 0.05*, < 0.01**.

2. Results

Results are initially presented for employed and unemployed people in general, that is with regard to employment status, and then related to gender, age group, education, social network, and cash margin. Only significant differences are reported, unless stated otherwise.

2.1. Main findings of QoL by employment status

Self-rated QoL was lower for the unemployed people compared with the employed (Table 2). The greatest difference to the worse for the unemployed was found in financial situation, followed by meaning in life and the global score "entire life". The smallest differences were found in family life, activity and cognitive ability.

2.2. QoL by employment status and gender

Differences were found between the unemployed women and men. Unemployed women scored higher than unemployed men in "entire life" and meaning in life. Also employed women had a tendency for higher values in the existential domains "entire life" ($p < 0.10$) and life meaning ($p < 0.08$), but rated significantly higher than employed men in social life. Employed men rated financial situation higher than employed women (see Fig. 1a, b).

Interacting gender effects were found for self-rated "entire life" where it could be seen that unemployed men were worst off (Fig. 2).

[2]We argue that it is safe to use the F-test in our analysis with reference to this test's robustness to violations of the normal distribution unless severely skewed variables (this is also generally valid for the t-test). However, also in such cases only very small differences have been found [20]. Nevertheless, we also carried out non-parametric tests (Mann-Whitney) to investigate differences between employed and unemployed groups. The results of the Mann-Whitney tests ($p < 0.01$) confirmed the significant results of the F-tests on all items except one, the item concerning Family life, which did not reach significance ($p < 0.06$). However, we chose to keep this result.

2.3. QoL by employment status and age group

The older adults (45–64) scored significantly higher on social life (unemployed $p < 0.05$; employed $p < 0.01$), and financial situation ($p < 0.01$), the older employed people also scored higher on mental well-being and the composite average score ($p < 0.01$).

2.4. QoL by employment status and education

Among the unemployed there were no differences in perceived QoL between those with university/college degrees and those with a shorter education. The lack of differences might be related to the small sample size among university/college graduates ($n = 29$–33, family life $n = 23$) and in most life domains a wider distribution in scoring. However, the employed with a university/college degree showed better QoL in somatic health, cognitive ability, financial situation, meaning in life and average composite score ($p < 0.01$).

The educational level was an interacting variable for meaning in life. Those who were unemployed and had a university/college degree scored proportionately lower compared to the other groups (see Fig. 3).

2.5. QoL by employment status and social network

Participation in regular leisure activities was associated with higher scores compared with those who did not report such activities in all life domains among both unemployed and employed people ($p < 0.01$) with the exception of financial situation among the unemployed.

Subjects who had "somebody to have heart-to-heart talks with" (original phrasing of the questionnaire item) had higher scores than those who did not ($p < 0.01$). The tendency was clearly that participating in regular activities was good, having a confidant to talk with was better, having both was the best in comparison with not having either (see Table 3).

Interaction effects were found for social life and the average composite score ($p < 0.05$), activity and financial situation ($p < 0.01$), and were proportionately lower among those who were unemployed and had nobody to talk with.

2.6. QoL by employment status and cash margin

Having access to a cash margin was associated with significant differences in a positive direction in employed and unemployed subjects ($p < 0.01$), except with regard to family life among the unemployed.

Interaction effects were found in mental well-being, social life and activity ($p < 0.05$), and again the unemployed were worse off.

Table 2
Means, standard deviations, t-values and degrees of freedom of self-rated QoL, among employed and unemployed subjects

Life domain	How is your life nowadays?				t-value and sig. (1-tailed)	df
	unemployed ($n = 423$ to 461; family life $n = 338$)		employed ($n = 2656$ to 2836; family life $n = 2327$)			
	mean	SD	mean	SD		
1 “entire life”	0.80	0.83	1.05	0.67	-5.82^{**}	3105
2 somatic health	0.62	0.85	0.83	0.77	-4.95^{**}	3295
3 mental well-being	0.87	0.86	1.05	0.73	-4.25^{**}	3290
4 cognitive ability	1.00	0.77	1.15	0.64	-4.01^{**}	3288
5 social life	0.89	0.83	1.10	0.65	-5.06^{**}	3285
6 family life	1.13	0.77	1.20	0.72	-1.65^{*}	2663
7 activity	0.71	0.93	0.90	0.77	-3.93^{**}	3077
8 financial situation	−0.16	1.08	0.61	0.86	-14.17^{**}	3113
9 meaning in life	0.79	0.82	1.04	0.68	-6.37^{**}	3213
Composite average Score (2–9)	0.71	0.64	0.98	0.54	-7.79^{**}	2926

Scale points: +2 (very good) across 0 to −2 (very poor); $^{*} = p < 0.05$, $^{**} = p < 0.01$.

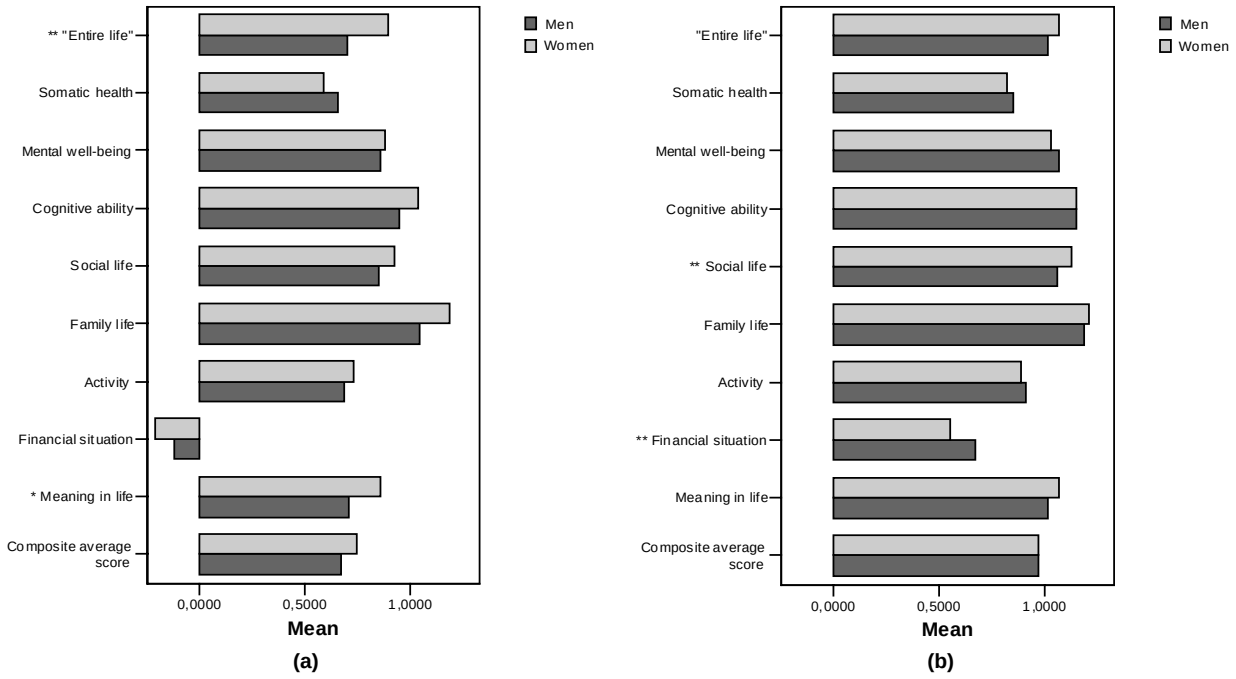

Fig. 1. (a) Self-rated QoL among unemployed men ($n = 212$–230; family life $n = 147$) and women ($n = 215$–232; family life $n = 191$). Significant differences are marked $^{*}p < 0.05$, $^{**}p < 0.01$. (b) Self-rated QoL among employed men ($n = 1307$–1391; family life $n = 1103$) and women ($n = 1349$–1446; family life $n = 1224$). Significant differences are marked $^{*}p < 0.05$, $^{**}p < 0.01$.

3. Discussion

3.1. General

Overall, previous findings of unemployment effects were supported, and this suggests that employment influences not only somatic health and mental well-being but also other domains in QoL (as measured by QLcs). The unemployed people exhibited lower self-rated QoL.

Scores were positively skewed, except with regard to financial situation, suggesting a “pretty good” life, irrespective of employment status. A proportionately low degree of distress among the unemployed might spring from the existing culture. Northern Sweden, is a predominantly rural area, with small towns, characterised

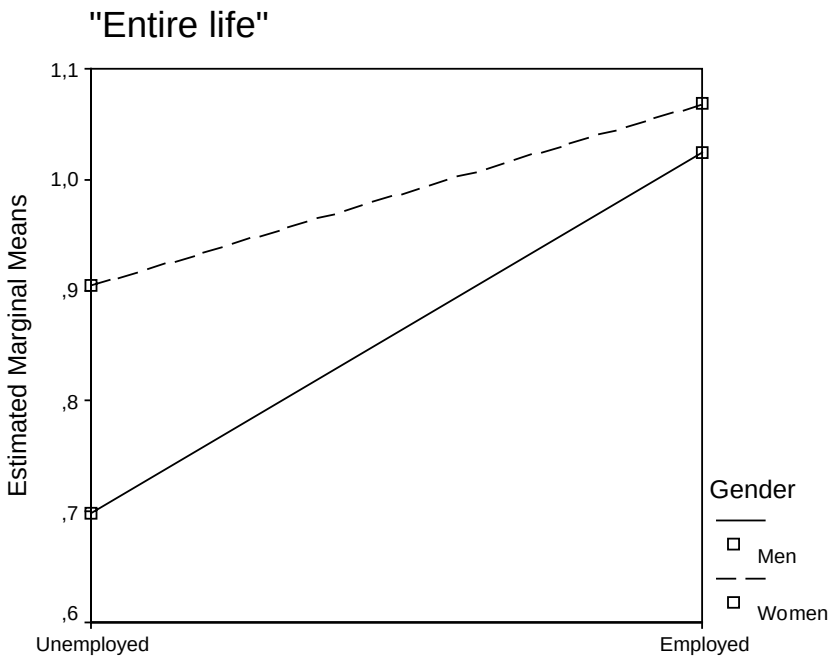

Fig. 2. Self-rated means of "entire life". Unemployed (men $n = 212$, mean $= 0.7$, SD $= 0.85$; women $n = 218$, mean $= 0.9$, SD $= 0.79$). Employed (men $n = 1323$, mean $= 1.02$, SD $= 0.67$; women $n = 1354$, mean $= 1.07$, SD $= 0.67$). (Unemployed/Employed x Gender $F(1, 3107) = 5.1$, $p < 0.05$.)

by informal networks, "circles of family and community support" [27] and an informal economy [33]. People support each other, they fish and hunt, and exchange favours. There is usually less chance of becoming re-employed than in metropolitan areas, but people are seldom idle. People in rural areas have many varied occupations and do not distinguish between work, in the sense of paid employment, and work during leisure time in the same way as inhabitants of big cities do [33, 41]. The clear difference between the employed and unemployed, with respect to the financial domain, indicates that money or lack of money is a constant source of anxiety for the unemployed. Similar strong associations between unemployment and financial strain are demonstrated in a number of previous studies [2,19,43, 49].

However, it is possible that the outcome among the unemployed would have been different if we had analysed each group separately (group one 29.6%, group two 44.4%, group three 26.1%). In the group who had been unemployed for less than one year (29.6%), where unemployment was a fairly recent state, some might have experienced life as more traumatic, at least in some life domains. On the other hand, others might feel relieved to have got out of a destructive working environment, and feel that they have got time for their family, time to reflect and so on. The majority of the unemployed, who had been unemployed for more than one year, might have experienced life in other less known ways.

3.2. The influence of sociodemographic variables

Unemployed women scored higher than unemployed men in existential life domains and in family life, and did not score lower than unemployed men in any of the other life domains. Most studies before 1997 showed that men are more affected by and dissatisfied with unemployment than women are. One possible reason could be that job loss is more existentially threatening to men [53] and influences their social and psychological identity to a greater degree than for women [45, 50], and that women are more likely to perform family roles as a substitute for employment [37]. Some studies, however, have found similarities rather than differences between unemployed men and women, e.g. Nordenmark [29], in terms of employment motivation for a younger group (18–25), Leeflang [23] in terms of ill health, Ensminger and Celentano [7] in terms of psychological distress. In the present study, gender differences were rather modest. Congruent with the whole study population, aged 18 and older, females in

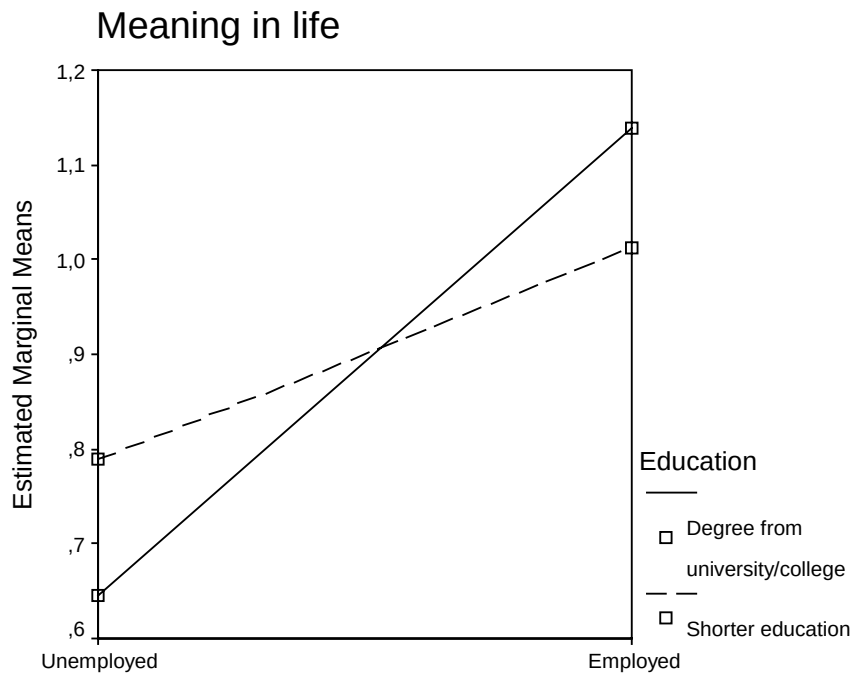

Fig. 3. Self-rated means of meaning in life. Unemployed (university/college $n = 31$, mean $= 0.67$, SD $= 0.91$; shorter ed. $n = 388$, mean $= 0.8$, SD $= 0.83$). Employed (university/college $n = 594$, mean $= 1.14$, SD $= 0.67$; shorter ed. $n = 1991$, mean $= 1.01$, SD $= 0.68$). (Unemployed/Employed x Education $F(1, 3004) = 4.02,\ p < 0.05$.)

general exhibited higher existential status ratings [12]. A possible explanation of the high ratings of women in our study is that Sweden is one of the leading countries in Europe concerning gender equality and has a well-educated population [8].

It is not surprising that older people generally rate QoL higher than young people in an unemployment situation, since older people have lived a good part of their life time while young people have a lot more to expect from life than unemployment.

Previous research has reported a positive relationship between higher education and subjective well-being [3, 22,25], which was also found in this study among the employed. An interesting tendency was that the opposite relationship was found among the unemployed. Well-educated subjects seemed to suffer more from unemployment than their counterparts with a lower education do (see Fig. 3). Our interpretation is that people with college or university degrees are highly motivated, have invested more time and money in education, and have lost more in terms of position, identity and also financially than individuals with a shorter education (and vice versa).

The importance of social networks for health and well-being is well documented [3,25,34]. The absence of someone to confide in was the strongest predictor, unemployment included, of morbidity and a high GHQ score in a previous study [13]. Likewise, this study indicates that intimacy in social contacts was crucial to QoL, irrespective of employment status (see Table 3).

Finally, our results support a claim that a financial base is a fundamental aspect of QoL for individuals in general.

3.3. Summary and methodological considerations

To sum up, the most persuasive variables for QoL, apart from employment status, were social network and cash margin. Age group and regular leisure activities showed no interaction effects with employment status. Two of the life domains were independent of interacting tests: somatic health and family life.

It is impossible to state whether selection (poor QoL reduces the likelihood of finding a job) or causality (unemployment leads to poor QoL) is the main mechanism behind the noted differences between employed and unemployed people, as their status in this study is assessed only at a single point in time. Recovery after re-employment in some studies indicates that unemployment causes ill health and especially poor mental health [6,21,48,49,51]. However, this does not quite

Table 3
Means and CI of "entire life"

Somebody to have	Regular leisure activities	
heart-to-heart talks with	Yes	No
Unmployed subjects		
Yes	1.04 (0.93–1.15)	0.81 (0.69–0.93)
No	0.45 (0.21–0.69)	0.12 (− 0.12–0.35)
Employed subjects		
Yes	1.18 (1.14–1.21)	0.97 (0.92–1.02)
No	0.67 (0.57–0.77)	0.51 (0.41–0.61)

Scale points: + 2 to − 2; Confidence Interval (CI) 95%.

rule out that ill health or poor QoL may increase the individual's risk of unemployment.

Generalisation to a whole population, e.g. a nation, is limited in this study due to the dominating rural sample, which presumably has other characteristics than a more urban one and the fact that our sample has a higher unemployment rate than the Swedish population at the time the study was carried out (14.3% and 7.1%, respectively). There is also reason to suspect that those who participate in the study, as in studies of this kind generally, are a "better-off" and healthier sample than those who do not [15,31]. In addition, we have no data as to whether the non-respondents are similar or different to the respondents with respect to baseline variables such as gender, age, education etc.

It is worth noting, that empirical studies during the last few decades have shown that a person's own appraisal of his/her own health and well-being, e.g. in self-reporting questionnaires, is a powerful predictor of future health and mortality, and also that subjective measurements correlate higher to one another than actual objective indices of QoL [26,28,47].

4. Conclusion

This study demonstrated five important findings that are not clearly described in the literature on self-rated quality of life among people who have a job or not. First, unemployed people demonstrated worse QoL than those who were employed, which is not very surprising, given that a negative psychological and physical impact was previously found among unemployed people. However, in this study the difference between employed and unemployed individuals is shown over a broader domain of life. Second, unemployed men reported a poorer QoL than unemployed women. This is not a new finding in general, but here it is shown that the global score "entire life" is the crucial factor that is lower among men. Third, older adults rated their life quality higher than younger adults, which is a new finding. Fourth, having a university or college degree was not an advantage in life quality for the unemployed, which is also a new and interesting finding, since it implies that well-educated people appear to suffer more than less educated people from unemployment. Fifth, it was found that a close social network and a financial base for individuals were basic to quality of life, irrespective of employment status. This supports previous research.

However, further research is needed to differentiate various aspects of quality of life and unemployment. Although our study contributes a number of new results, it is still not clear which aspects of quality of life, employment status could have an impact on, and how such mechanisms work. The dominating view is still that work and employment have a fundamental impact on our lives, but with changes in work and life patterns this view could be challenged. Moreover, the length of the period of unemployment is a factor that could be worth exploring in relation to QoL, but this is not investigated here. Finally, further studies of employment status would benefit from using samples also from urban areas of Sweden, as well as less urban areas and comparable samples from other countries.

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References

[1] E. Allardt, *Att Ha, Att Älska, Att Vara* (*Having, loving, being*), Argos, Lund, 1975, 23–35.
[2] M. Bartley, Unemployment and ill health: understanding the relationship, *Journal of Epidemiology and Community Health* **48** (1994), 333–337.

[3] J. Baxter, S.-M. Shetterly, C. Eby, L. Mason, C.-F. Cortese and R.-F. Hamman, Social network factors associated with perceived quality of life: The San Luis Valley Health and Aging Study, *Journal of Aging and Health* **10**(3) (Aug. 1998), 287–310.

[4] O. Björ and B. Malker, *Liv och Hälsa – Befolkningsundersökningen i Norrland* (Life and Health – The population study in the Northern counties), Epidemiologiska enheterna i Västernorrland, Jämtland, Västerbotten och Norrbotten, Teknisk rapport, Rapportserie 6, 1999.

[5] C.L. Broman, V.L. Hamilton, W.S. Hoffman and R. Mavaddat, Race, gender, and the response to stress: autoworkers' vulnerability to long-term unemployment, *American Journal of Community Psychology* **23**(6) (Dec. 1995), 813–842.

[6] B. Claussen, Health and re-employment in a five-year follow-up of long-term unemployed, *Scandinavian Journal of Public Health* **2** (1999), 94–100.

[7] M. Ensminger and D. Celentano, Gender differences in the effect of unemployment on psychological distress, *Social Science and Medicine* **30**(4) (1990), 469–477.

[8] Office for Official Publications of the European Communities, Eurostat yearbook: the statistical guide to Europe 7. ed, data 1990–2000, Luxembourg, 2002, 36, 92, 99.

[9] D. Fryer and R. Payne, Proactive behaviour in unemployment: findings and implications, *Leisure Studies* **3** (1984), 273–295.

[10] A. Giddens, *Sociologi* (*Sociology*), Studentlitteratur, Lund, 1997, 363–372.

[11] L. Hallsten, Arbetslöshet och psykisk ohälsa 1980–1996 – en metaanalys (Unemployment and mental ill-health – a meta-analysis), *Arbete och hälsa, Arbetslivsinstitutet* **28** (1997), 1–38.

[12] B. Hansson and J.O. Hörnquist, *Change and status in quality of life* (*CaSinQoL*) *in northern Sweden. By age and gender*, Abstract accepted for presentation at the XXVII International Congress of Psychology in Stockholm, 23–28 July, 2000.

[13] J. Harrison, S. Barrow, L. Gask and F. Creed, Social determinants of GHQ score by postal survey, *Journal of Public Health Medicine* **21**(3) (Sep. 1999), 283–288.

[14] R. Haynes, S. Gale, A. Lovett and G. Bentham, Unemployment rate as an updatable health needs indicator for small areas, *Journal of Public Health Medicine*, Oxford University Press, 1996.

[15] C.H. Hennekens and J.E. Buring, *Epidemiology in Medicine*, Little Brown and Company, Boston/Toronto, 1987, pp. 171–172.

[16] J.O. Hörnquist, Quality of life: concept and assessment, *Scandinavian Journal of Social Medicine* **18** (1989), 69–79.

[17] J.O. Hörnquist, A. Wikby, B. Hansson and P.O. Andersson, Quality of life: status and change (QLsc) reliability, validity and sensitivity of a generic assessment approach tailored for diabetes, *Quality of Life Research* **2** (1993), 263–279.

[18] J.O. Hörnquist, *Change and status in quality of life* (*CaSinQoL*) *in northern Sweden in 1997/98*, Abstract, The Unit for Research and Development at the County Council of Jämtland, Östersund, Sweden, 2001.

[19] M. Jahoda, *Employment and Unemployment*, University Press, Cambridge, 1982.

[20] G. Keppel, *Design and Analysis. A Researcher's Handbook*, (2nd ed.), Englewood Cliffs, NJ, Prentice-Hall, Inc., 1982.

[21] E. Lahelma, Unemployment and mental well-being: Elaboration of the relationship, *International Journal of Health Services* **22**(2) (1992), 261–274.

[22] E. Lahelma, O. Rahkonen, M.A. Berg, S. Helakorp, R. Prattala, P. Puska and A. Uutela, Changes in health status and health behavior among Finnish adults 1978–1993, *Scandinavian Journal of Work Environment & Health* **23**(3) (1997), 85–90.

[23] R. Leeflang, D. Klein-Hesselink and I. Spruit, Health effects of unemployment-II. Men and women, *Social Science and Medicine* **34**(4) (1992), 351–363.

[24] B. Lindström, The essence of existence. On the quality of life of children in the Nordic countries, (Ph.D. thesis), NHV-Report 3, Göteborg, 1994 .

[25] L. Lu, The relationship between subjective well-being and psychosocial variables in Taiwan, *Journal of Social Psychology* **135**(3) (June 1995), 351–357.

[26] A. Maastekaasa, T. Moum, S. Naess and T. Sörensen, *Livskvalitetsforskning* (*Research of QoL*), ISF Rapport 88:6, Oslo, 1988.

[27] J.K. Magilvy, J.G. Congdon and R. Martinez, Circles of care: Home care and community support for rural older adults, *Advanced Nursing Sciences* **16**(3) (1994), 22–33.

[28] L. Möller, T.S. Kristensen and H. Hollnagel, Self-rated health as a predictor of coronary heart disease in Copenhagen, Denmark, *Journal of Epidemiology and Community Health* **50** (1996), 423–428.

[29] M. Nordenmark, Employment commitment and psychological well-being among unemployed men and women, *Acta Sociologica* **42**(2) (1999).

[30] OECD, *OECD employment outlook/Organisation for Economic Co-operation and Development*, Appendix tab H, July 1999, 248–252.

[31] J.N. Payne, J. Coy, P.C. Milner and S. Patterson, Are deprivation indicators a proxy for morbidity? A comparison of the prevalence of arthritis, depression, dyspepsia, obesity and respiratory symptoms with unemployment rates and Jarman scores, *Journal of Public Health Medicine*, Oxford University Press, 1993.

[32] B. Rokne Hanestad, Livskvalitet knyttet til sykepleiepraksis og forskning – noen utfordringer (Quality of life linked to nursing clinics and research – some challenges), *Vård i Norden* **13**(3) (1993), 11–15.

[33] A. Ronnby, *I skogarnas land. Om socialt arbete i glesbygd* (*In the land of woods. Social work in rural areas*), Statens råd för byggnadsforskning, Stockholm, 1990, 149–159.

[34] A. Rosengren, K. Orth-Gomér, H. Wedel and L. Wilhelmsen, Stressful life events, social support, and mortality in men born in 1933, *British Medical Journal* **307** (30 Oct. 1993), 1102–1105.

[35] A. Sarvimäki, Livskvalitet sent i livet (Quality of life, late in life), in: *Begrepp om hälsa. Filosofiska och etiska perspektiv på livskvalitet, hälsa och vård*, (Concepts on health. Philosophical and ethical perspectives on quality of life, health and care), K. Klockars and B. Österman, eds, Liber Utbildning, Stockholm, 1995, pp. 156–167.

[36] K.F. Schuessler and G.A. Fischer, Quality of life research and sociology, *Annual Review of Sociology* **11** (1985), 129–149.

[37] B. Shamir, Sex differences in psychological adjustment to unemployment and reemployment: A question of commitment, alternatives or finance, *Social Problems* **33**(1) (1985), 67–69.

[38] P. Sinclair, *Unemployment: Economic Theory and Evidence*, Blackwell, Oxford, 1987, pp. 1–3.

[39] R. Smith, "Bitterness, shame, emptiness, waste": an introduction to unemployment and health, *British Medical Journal* **291** (Oct. 1985), 1024–1027.

[40] R. Smith, "What's the point. I'm no use to anybody". The psychological consequences of unemployment, *British Medical Journal* **291** (Nov 1985), 1338–1341.

[41] E. Sommerlad and J. Altman, Alternative rural communities: A solution to urban unemployment? *Australian Journal of Social Issues* **21**(1) (1986), 3–15.
[42] B. Starrin and G. Larsson, Coping with unemployment – a contribution to the understanding of women's unemployment, *Social Science and Medicine* **25**(2) (1987), 163–171.
[43] B. Starrin, U. Rantakeisu and C. Hagquist, In the wake of recession – economic hardship, shame and social disintegration, *Scandinavian Journal of Work and Environmental Health* **23**(Suppl 4) (1997), 47–54.
[44] Statistiska centralbyrån (SCB) (Statistics Sweden), *Arbetskraftsundersökningen* (*AKU*), (Labour force investigation), 1997.
[45] C.-G. Stefansson, Long-term unemployment and mortality in Sweden, *Social Science and Medicine* **32**(4) (1991), 419–423.
[46] I. Theodossiou, The effects of low pay and unemployment on psychological well-being: A logistic regression approach, *Journal of Health Economy* **17**(1) (1998), 85–104.
[47] T. Trauer, R.A. Duckmanton and E. Chiu, A study of the quality of life of the severely mentally ill, *International Journal of Social Psychiatry* **44**(2) (1998), 79–91.
[48] C. Wanberg, A longitudinal study of the effects of unemployment and quality of reemployment, *Journal of Vocational Behavior* **46** (1995), 40–54.
[49] P. Warr, Twelve questions about unemployment and health, in: *New Approach to Economic Life*, R. Roberts, R. Finnegan and D. Gallie, eds, Manchester University Press, Manchester, 1985, pp. 302–318.
[50] H. Viinamäki, K. Koskela, L. Niskanen and R. Arnkill, Unemployment, financial stress and mental well-being: A Factory Closure Study, *European Journal of Psychiatry* **7**(2) (1993), 95–102.
[51] S.H. Wilson and G.M. Walker, Unemployment and health: A review, *Public Health* **107** (1993), 153–162.
[52] T. Ytterdahl, Langtidslediges opplevelse av arbeidsledighet. En undersökelse fra Lillesand. (Emotional response to long-term unemployment.), *Tidsskrift for Norsk Laegeforening* **117** (1997), 819–822.
[53] T. Ytterdahl and P. Fugelli, Health and quality of life among long-term unemployed, *Tidsskrift for Norsk Laegeforening* **120** (2000), 1308–1311.