

FROM THE DEPARTMENT OF PUBLIC HEALTH
SCIENCES
Karolinska Institutet, Stockholm, Sweden

**SOCIAL DIFFERENTIALS IN
HEALTH AMONG LONE
MOTHERS IN DIFFERENT
POLICY CONTEXTS**

**FINANCIAL DIFFICULTIES AND
EMPLOYMENT STATUS IN RELATION TO
HEALTH**

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**Karolinska
Institutet**

Stockholm 2011

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Published by Karolinska Institutet. Printed by LarsEric's Digital Print AB.

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ISBN 978-91-7457-566-8

We want mothers who feel well, who are whole. And can manage on their own.

Laila, focus group participant 2010

ABSTRACT

Lone mothers report worse health compared to couple mothers in most societies, regardless of which measure of health is chosen; whether it is mental or physical health. The poorer health of lone mothers has been linked to a lack of material resources. The aim of this thesis is to increase knowledge on how societal factors affect the health of lone mothers in different policy contexts, by specifically studying financial strain and employment status in relation to health. A key issue is also to consider the social differentials within the group lone mothers.

In Study I we analysed whether economic strain is associated with excess risk of poor health among lone mothers in Sweden, by time period and income group. Data from the Swedish Survey of Living conditions (ULF) 1979-1998 were analysed using logistic regression analysis. Economic strain was associated with poor SRH and contributes to the excess risk of poor health among lone mothers. A polarisation of health was noticed among lone mothers over time, with improved health among the highest income groups, and a deterioration of health among the lowest income groups. Study II aimed to analyse whether social and policy changes in Sweden during the 1990s had adverse influence on the health of lone mothers. It was based on data from ULF (1983-2001) and routine statistics from health-data registers on severe morbidity and mortality (1985-2001), analysed by logistic regression and Poisson regression analysis respectively. The findings showed that despite an increase of poor health for lone mothers, and increased exposure to health risks such as lack of cash margin and economic strain, we did not find evidence of increased differentials in poor self-rated health, hospitalization or mortality over time between lone and couple mothers. Non-employed lone mothers had particularly poor health.

In Study III, we analysed how non-employment and health is associated among lone and couple mothers in countries with different family policy models. Data from national surveys from Britain, Italy and Sweden (2000-2005) were analysed using logistic regression analysis and the synergy index. Non-employment only marginally contributed to the excess risk of poor health among lone mothers found in Britain and Sweden but there were indications of synergy effects between lone motherhood and non-employment, causing a higher risk of poor health than would be expected from a simple addition of these exposures, in Britain, Italy and Sweden. The aim of Study IV was to analyse the experiences and strategies of everyday life of Swedish lone mothers with financial strain in relation to maintaining health. The study was performed in Sweden 2010 and based on four focus group discussions with 15 participants. The thematic analysis was informed by critical discourse analysis, positioning theory and the concept of agency. The findings showed that lone mothers find themselves in a pressing context, where their financial situation and shortage of time to a high degree restrains their possibilities of maintaining health and to participate in society.

Improving the economic conditions for lone mothers is important for their health, and for their social and financial participation in society. Improving the possibilities to combine employment and lone parenthood and ensuring sufficient economic conditions for lone mothers without employment is within the scope of social policy.

LIST OF PUBLICATIONS

- I. Fritzell S, Burström B. Economic strain and self-rated health among lone and couple mothers in Sweden during the 1990s compared to the 1980s. *Health Policy*, 2006 Dec;79(2-3):253-64.
- II. Fritzell S, Ringbäck Weitoft G, Fritzell J, Burström B. From macro to micro: the health of Swedish lone mothers during changing economic and social circumstances. *Soc Sci Med*. 2007;65(12): 2474–2488.
- III. Fritzell S, Vannoni F, Whitehead M, Burström B, Costa G, Clayton S, Fritzell J. Does non-employment contribute to the health disadvantage among lone mothers in Britain, Italy and Sweden? Synergy effects and the meaning of family policy. *Health & Place* 2011, in press
10.1016/j.healthplace.2011.09.007
- IV. Fritzell S, Bakshi A-S, Fritzell J, Burström B. Lone mothers and *othering* – discourses of economy, health and everyday life. A focus group study with Swedish lone mothers living under financial strain (manuscript)

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LIST OF ABBREVIATIONS

SRH	Self-rated health
ULF	Swedish Survey of Living Conditions
CI	Confidence interval
SI	Synergy index
XF	Explained fraction
SCB	Statistics Sweden

1 INTRODUCTION

Health can be seen as the ultimate measure of how well we are doing as a society (1). The starting point of this thesis was an interest in social inequalities in health, how they are produced, and specifically of how the way society is organized may contribute to or lessen these inequalities.

Living conditions and health of lone mothers have been proposed as a litmus test on how well a society cares for its most vulnerable citizens (2). The policy environment sets the scene for the life chances and life course trajectories of individuals and social groups. Since lone mothers have both caring and earning responsibilities, their living conditions are particularly sensitive to the set-up of social policies. Lacking the complementary income of a partner, they have to make an income sufficient to support themselves and their children, or else they must rely on the family or the state for support.

Lone mothers report worse health compared to couple mothers in most societies, regardless of which measure of health is chosen; whether it is mental or physical health. This holds true whether the health outcome is self-reported or measured as mortality or conditions requiring hospital care. For example, lone mothers suffer increased risk of depression and other mental disorders, poor self-reported health, severe injury and ill health, and premature death (3-10). In several of these studies, the poorer health of lone mothers is linked to a lack of material resources. What is less explored is how the health of lone mothers differs between different contexts and by social characteristics.

The pathways to poor health may differ between welfare states and over time. Studies comparing living conditions and health among lone mothers between settings, for example between countries and over time, may therefore yield important insights as to how inequalities in health come about, and consequently what can be done to reduce those inequalities. Further, lone mothers are a heterogeneous group, with different social characteristics. Therefore there is a need to look into social differentials in health among lone mothers, for example between those with or without gainful employment or in different financial circumstances.

The poor health of lone mothers is an important public health concern. By analysing the health of lone mothers in comparison with couple mothers in Sweden over time, and in different welfare states with different institutional characteristics (Britain, Italy and Sweden), this thesis seeks to increase knowledge on both the 'how' and the 'why' in differences in patterns of poor health for lone mothers in different contexts.

2 BACKGROUND

Any woman with a child may become a lone mother and the reasons for being lone differ between individuals; it can be a matter of choice such as initiating (or agreeing to) a separation/divorce or deciding to have a child on your own. Or it might be a consequence of life events such as the partner initiating a separation/divorce or the death of partner.

The reasons for being a lone parent have changed over time. In Sweden in the early 1900s, the most common reason for children to be living with only one parent was the death of the other parent. Somewhere during the mid-century, this shifted so that separation of the parents became the most common reason. The number of children with separated parents increased during the 1980s and the 1990s, and declined somewhat after that. Children who never lived with both their parents have increased from 1 per cent in the beginning of the 1900s to 5 per cent 2008. (11)

In Sweden, 20 per cent of all mothers are lone mothers (12). Generally, lone mothers' living conditions differ due to general conditions such as social and demographic factors and to conditions specific for lone mothers; such as whether custody and parental responsibility is shared with the father of the child(ren) or not. The situation for lone mothers with larger networks may be very different from that of those who are more socially isolated and do not have support from the father of the child(ren). Joint custody is today a common option after a divorce or separation in Sweden, and children of separated parents increasingly split time between their parents equally (13). In the mid-1980s, only 1 per cent split time between their parents equally, in 2006-2007 this had increased to 28 per cent. However, it is still most common that the children live only with their mother (11). In the studies of this thesis, the definition of a lone mother is that she lives with her child(ren) and does not live with a partner.

Lone motherhood is not a static situation; it may be a longer or shorter phase in life. Routes out of lone motherhood include the children growing up and leaving home and re/partnering. Whether lone mothers re-partner or not is in part dependent on the view of lone motherhood in society. In countries such as Sweden where the stigma surrounding lone motherhood is comparatively low, re-partnering is common. In other countries where the stigma may be higher, such as Italy, re-partnering is rare (14).

The view on lone motherhood is influenced by societal values, shaped in turn by history, religion and gender roles¹. This may influence both the experience of being a lone mother and routes into lone motherhood. As society changes over time, the context in terms of time and place is important when analysing health and living conditions among lone mothers.

¹ See for example Duncan and Edwards (Duncan, S. & Edwards, R. (1999). *Lone mothers, paid work and gendered moral rationalities*. Basingstoke: Macmillan) for a discussion on discourses on lone motherhood.

2.1 SOCIAL INEQUALITIES IN HEALTH

The WHO describe the social determinants of health as “the conditions in which people are born, grow, live, work and age, including the health system” (15). These conditions are influenced by how money, power and resources are distributed in the population, which is in turn affected by policy choices. Through social policy, economic resources may be reallocated in the population and across the age span, to support individuals in times of unemployment, sickness, old age or with small children. This may also include subsidized or free of charge services, such as healthcare or childcare. Thus, welfare state arrangements and social policy may be determinants of health and influence the distribution of health (16-20).

A social gradient in health runs from top to bottom of society, and every step down the social hierarchy is associated with worse health (21). The causes of this gradient can be found in the unequal distribution of the social determinants of health found within and between countries and boils down to systematic differences in life chances, living conditions and lifestyles between social groups.

Diderichsen (22) has developed a framework for analysing inequalities in health, and describing how they are produced (see Figure I). The structural location in society as indicated by social position (commonly measured by level of education, occupation or income) is an important indicator of how likely the individual is to be exposed to both health damaging exposures and health enhancing resources (Mechanism I). For example, low social position is often associated with health risks such as poverty, or bad housing. It has also been associated with negative health behaviours such as smoking, poor diet or inadequate exercise (23).

Mechanism II implies that whether an exposure leads to ill health or not is in part dependent on the presence of other risk factors. Thus, unemployment may not be as detrimental to health for individuals with good social networks, who can receive emotional and instrumental support. Being exposed to several health risks, these may further interact to increase susceptibility to the adverse health effects of a certain exposure. Lone mothers are often exposed to several health risks, and these may then interact to produce a higher susceptibility to poor health of a given exposure.

The social and policy context refers to characteristics such as institutions, legislation, norms and culture. For example, the prevailing norms on women’s roles in production and reproduction influences the way the labour market is structured. The social and policy context is also influenced by the overarching macroeconomic situation. Through legislation and the welfare state institutions, the social and policy context may intervene to affect these mechanisms. By impacting on the pathways from social position to ill health through several entry points, living conditions and ultimately the health of the population may be influenced. *Social stratification* (entry point A) concerns the generation and distribution of wealth and power in society and impacts on the route into certain social positions. How lone mothers differ from couple mothers in both demographic and social characteristics in different welfare states is in part influenced by social stratification and welfare state context. The age distribution of lone mothers

may be influenced also by availability of sex education and contraceptive services which make the route into lone motherhood less common among young women, or by liberal divorce laws which can increase the prevalence of lone motherhood. Whether the educational system is egalitarian and enables high social mobility or not may influence the social composition of lone mothers. Labour market policies as well as availability of childcare are some of the factors that influence women's economic independence (24), and thus the possibilities to form an autonomous household. Family policy will be described more in detail further on.

Policy also influences *exposure and the effect of being exposed* (entry point B and C). Subsidised institutions for childcare are especially important for lone parents trying to negotiate work/family balance. Misra et al. (25) showed for instance that public childcare lowered the poverty rates of lone mothers (but not of partnered mothers). Universal healthcare coverage may lessen the health effects of low social position when it is possible to seek care, at a subsidised cost, at an early stage. Research from Sweden has shown that lone mothers avoid visiting healthcare despite a perceived medical need and that financial difficulties impact on this decision (26). By virtue of being sole providers, lone mothers run the risk of poverty. Policies such as housing benefits, social assistance benefits, universal child allowances, and child maintenance advance for lone parents are of importance in decreasing the risk of poverty of lone mothers.

In international comparisons, poverty rates (measured as below 60 per cent of median equivalent disposable income) have been shown to be relatively low among single parents (of who the vast majority are mothers) in the Nordic countries, while they have been extremely high in the United Kingdom (27). The low poverty levels in the Nordic countries have been attributed to family policy generosity (28) which in turn results in high employment among lone mothers.

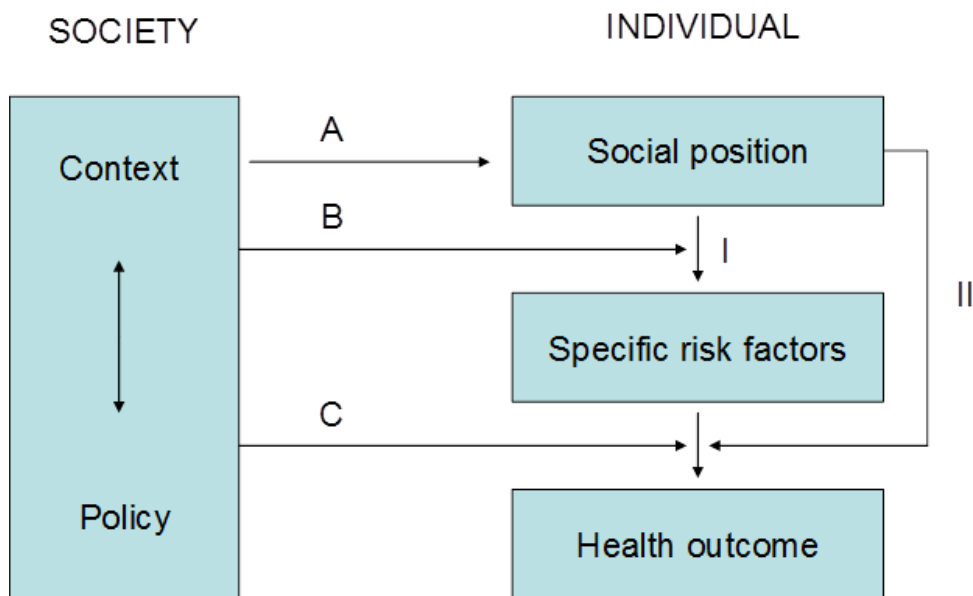


Figure I. Conceptual framework for studying the health impact of social position and social context. Adapted from Diderichsen et al. (22)

2.2 WELFARE STATES AND POLICY REGIMES

In recent years, comparative social epidemiology has increasingly used welfare state regime theory as a way of clustering welfare states into different categories to enhance understanding of how welfare state arrangements influence health (29). Several typologies have been brought forward, of these the perhaps most influential is Esping-Andersen's typology. According to Esping-Andersen's original typology of regimes (30) countries tend to be divided into three clusters (liberal, social democratic and conservative-corporatist) according to social rights and the degree of decommodification of labour they bring, the social stratification and the role of private and public actors in welfare provision. It should be kept in mind that these clusters represent ideal types. In the real world, it is not always as clear cut, and countries may be grouped on account of bearing more similarities to one ideal type than another. Depending on which welfare institution is under scrutiny (pensions or healthcare etc), countries could also have traits from different welfare state regimes.

Typical features of the *social democratic* model that has been exemplified by Sweden and the other Nordic countries are universal policies with a high coverage and comparatively high generosity. This system is constructed on assumed high employment rates, both for men and women. Social and economic policy is integrated, and the individual, rather than the family, is in focus. Policies are egalitarian in the sense that they aim at increasing both equal opportunities and equality of outcomes such as education, reduced poverty and good health for all. The *liberal model*,

exemplified for example by Britain, USA and Australia, relies more heavily on the market for economic security. Welfare benefits for those in need tend to be means-tested and modest, and often stigmatising. Policies may be utilitarian in the sense that they promote equality of opportunity. Generally, these societies are the most stratified. The *conservative-corporatist* welfare state may be exemplified by Italy, France and Germany. This welfare regime has the traditional family values in focus and a large influence of the church. Women who stay at home with children are common, well seen, and favourably taxed. Support is given only when the families' resources are emptied. Authors have rightfully argued that the southern European welfare states differ— and may even be regarded as a specific ideal type of welfare states - in their strong emphasis on the family as a unit to which all members contribute; the contribution is further stratified by gender (31).

The typology of Esping-Andersen has been criticised for being too crude. Differences between countries in the same grouping can be very large, as well as differences between regions of a country (32, 33). It has also been criticised for being gender blind and ignoring the role of the family and social services. See for example Orloff (34) for a discussion on how feminist scholars have forwarded the knowledge by bringing the family into the analyses in welfare state research.

What Orloff (35) called the capacity to form an autonomous household (without having to rely on a man through marriage, or other family ties for income and support) was one of these important gendered additions of particular relevance for lone motherhood. In most Western societies, the nuclear family (wife, husband and their children) is considered an ideal family type and forms the basis for family policy and family law (36). Lone mothers thus challenge the norm of what a family “should” look like, and therefore, society is generally not built for their needs. As Sainsbury (37) notes, lone mothers challenge the decommodification theories of Esping-Andersen, since for these, social rights and the rights to employment are crucial. Thus, the system that is decommodifying for a traditional family with a male breadwinner could be just the opposite for a lone mother.

Several typologies with a gender perspective have been proposed. Among the more influential are Sainsbury's (37) typology which differentiates between the male-breadwinner and the individual (dual-earner) model. Another is the parent-worker or care giver models developed by Lewis and Hobson (38), in which the notion of care regimes was constructed to position lone mothers in welfare states. Care regimes are defined according to the sources of income available for lone mothers.

The comparative study (III) in this thesis rests on a model originally developed by Korpi (39) and elaborated by Ferrarini (28) based on multidimensional and institutional structures of relevance for both gender inequality and class inequality. It was chosen since family policies are of particular salience to parents with dependent children, and especially for lone mothers. Here, special account is taken of the expansion of family policy and its effects on the lives of women (see also (28, 40, 41). Family policies are multidimensional and reflect conflicting political forces as well as religion. Here, the main distinction is made by whether the policies favour traditional families, market reliance or mother's employment. This typology groups countries similarly to the

welfare typology of Esping-Andersen. The difference however, is that the focus here solely is on the institutional dimensions of family policy.

Generally, family policies deal with the reconciliation of work and family life (42). Indicators used are based on childcare, parental leave, child allowances, family tax benefits and services for the elderly. The categorisation of family policy is shown in Figure II. It has two dimensions, the first one display the degree to which policy supports a traditional, nuclear family, by benefits, tax relief and leave entitlements that support the men as main breadwinners and women's unpaid work at home. The other dimension displays the degree to which policy supports a dual-earner family with women in full-time employment. The categorisation of countries should not be regarded as fixed, but may change as policy shifts.

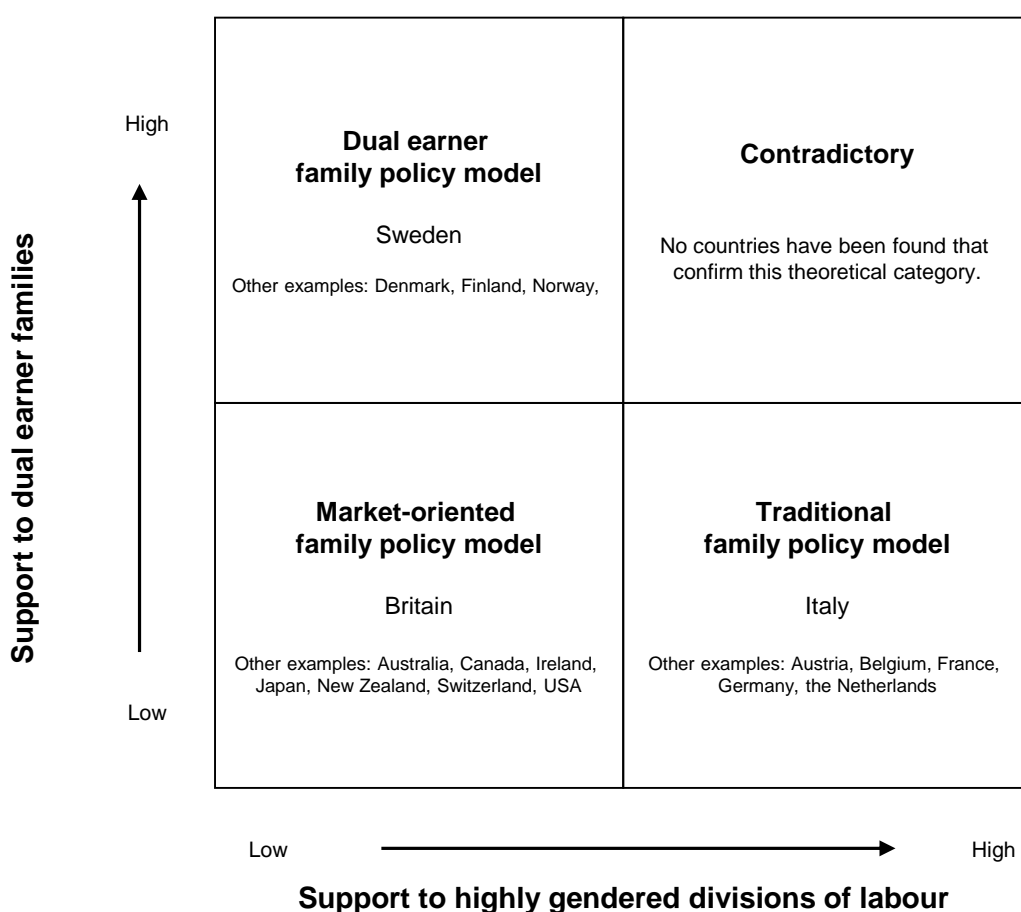


Figure II. Dimensions and models of family policy around the year 2000. Adapted from Korpi (39), Ferrarini (28) and Ferrarini and Norström (40)

2.2.1 Employment and childcare in Britain, Italy and Sweden

In Korpi's typology (39), Britain falls into the 'Market-oriented model' with low levels of support, leaving families to deal with family support and childcare privately through the market. Among mothers in Britain, employment rates have traditionally been low, especially among lone mothers, who have received financial support to stay at home with their children. Thus, the position of Britain in the Market-oriented model may be discussed when it comes to lone motherhood. Since the late 1990s, there have been extensive investments in making childcare more available and affordable. With the National Childcare Strategy, 15 hours per week of free early years education for three and four year olds was introduced along with a subsidy for childcare for working low and middle income families (43). Childcare for children aged below three is mainly provided by parents, grandparents or child-minders in Britain (Lewis, Knijn et al. 2008). Also, a range of social and employment policies have been introduced in order to support maternal employment. Family friendly policies and flexible employment have been introduced through legislation, and both maternal and paternal leave and benefits have been improved albeit from a comparatively low level (43). These reforms have had a positive effect on employment rates of lone mothers (44). However, the limited provision of low-cost, flexible childcare for low income parents, and lone mothers in particular, remains a barrier to employment (45, 46).

Italy falls into the 'Traditional family policy model', orientated towards preserving traditional family patterns with highly gendered divisions of labour within families. The welfare state has only a residual role to tackle very critical situations, when families or individuals are poor in a manifest way and are entitled to receive public assistance. In other instances family and relatives are expected to provide support. As in the rest of southern Europe, women tend either not to work at all, or work full-time and continuously. Lone mothers are often in the latter category (47, 48). Negative attitudes towards mothers' employment are more prevalent than in the other policy categories (39). Tax benefits for a working male with a dependent partner and flat-rate childcare leave benefits encourage mothers to stay at home. Accessibility of childcare in Italy is limited and heterogeneous across regions, and offers low flexibility in hours of service, but it is generally of high quality (49). The availability of informal childcare and family support is thus necessary and increases the probability of mothers' employment (49). It is especially common that grandmothers mind children aged below three, for whom child care is not readily available (50). The downside to informal childcare is family dependency for lone mothers (51).

Sweden falls into the 'Dual-earner model'. Both fathers and mothers are encouraged to work through family-friendly employment policies (including generous parental leave and possibilities to reduce work hours). The employment rates of mothers including lone mothers' are thus among the highest in Europe. In Sweden, work is often described as a prerequisite to be included in society. The working imperative is strong and is largely embraced also by lone mothers themselves (52). To facilitate employment, childcare in Sweden is heavily subsidised and available full time from the child's first birthday. The childcare is generally considered to be of high quality and the

fees are income related (with a low ceiling) (53). However, during the last decade the employment rate among lone mothers has declined. Recent changes in family policy include a flat rate home care allowance which has been introduced to allow a parent to stay home and tend to small children. A relatively low monthly allowance is received for this. Also, “daddy-months” has been implemented in the parental leave system (53).

As noted above, labour market opportunities for women vary between different welfare systems and these country differences are related to family policy. These observed differences between the countries suggest that the relationship between lone motherhood, financial strain, non-employment and health might vary. Labour market opportunities may also vary by social groups. For example, in countries with “earner-carer” policies, employment rates are higher among women with low or medium education than in countries with “market-oriented” and “traditional-family” policies (41). Dual-earner policies have been found to be beneficial also for lone mothers who benefit from the support for work-family reconciliation (54).

There is an extensive body of literature on mothers’ living conditions related to policy regimes and welfare state arrangements (see for example 42, 55, 56). Less often however, is this related to the health of the lone mothers and social differences in health within the group.

2.2.2 Social composition of lone motherhood

On a societal level, the pathways to lone motherhood are affected by the policy framework surrounding lone motherhood. Culture, religion and norms as well as the ability to form and maintain an autonomous household as a lone mother all play a part. Barriers to divorce as well as expectations of what life will be like as a lone mother in financial and social terms may impact on the prevalence of lone motherhood in different societies.

Therefore it is not surprising that we find differences in the prevalence as well as the social composition of lone mothers in different welfare states and across time. A recent study showed that the route as well as the social selection into lone motherhood differed between Britain, Italy and Sweden (6). In Italy for example, the most common route into lone motherhood is becoming a widow while in Britain and Sweden the most common route was divorce and being single/never married. The social selection seems to go in different directions in the three countries. In Sweden lone mothers are quite equally distributed between the socio-economic groups. While Britain has a large share of young working class women who are lone mothers, in Italy the situation is the opposite. Being a lone mother in Italy (when it is not the consequence of death of partner) is most common among the higher socio-economic groups. In all three countries, there is a social gradient in poor health among both lone and couple mothers, but with higher levels of poor health for lone than for couple mothers within each occupational class. This indicates that lone motherhood is associated with health disadvantage in all three countries, even when social position is taken into account. The study by Burström et al. (6) also indicated that poverty may be more damaging to the

health of lone mothers in Britain than in Sweden, and pointed out the non-employed as a particularly vulnerable group of lone mothers.

The growing numbers of lone mothers that has been found in many Western countries has been related to the rise in women's employment (57), which in turn may be linked to female emancipation. Table I shows the social characteristics of lone and couple mothers aged 16-59 years, by employment status in Britain, Italy and Sweden in the early 2000s (data from cross-sectional surveys, as described in the data section).

2.3 WHAT EXPLAINS THE HEALTH DISADVANTAGE OF LONE MOTHERS?

2.3.1 Health selection

Health selection-processes may play a part in the poorer health of lone mothers. Unhealthy people may be less inclined to be married or cohabiting, or more likely to become divorced (58-63). However, even though mothers with poorer health are slightly more likely to become lone, this cannot explain the major bulk of the excess risk of poor health among lone mothers (7). Gähler (64) studied family dissolution and psychological distress among Swedish women and men. The study shows that psychological distress prior to the divorce explains only a limited part of the increased risk that divorcees have for poorer psychological wellbeing. The author interprets this as an indication that there is no major health selection into family dissolution (64). Clearly, there is also something in being a lone mother that takes its toll on health.

2.3.2 Social causation

Lack of household resources has been proposed as an explanatory factor in the excess risk of poor health among lone mothers (4). Studies have suggested several pathways through which lack of resources may lead to poor health. According to Brunner and Marmot (65), the social structure may influence health via three main pathways; material, psychosocial and behavioural pathways. Firstly, there is the 'material' interpretation in which material circumstances are related to health both directly and through work and social environment. An inadequate income may lead to problems related to material conditions which may influence health (66). There may for example be problems with inadequate housing, nutrition, clothing and medical care.

Psychological demands and challenges in life may activate the fight-or-flight response through signal pathways known as the neuroendocrine pathways (65). The stress experienced can be both acute and chronic. Financial strain and lack of social support for example, may produce a low level of stress that is constant. Whether the level of demands poses a risk to the individual has to do with individual coping resources and the perceived ability to control the situation. However, if the biologic stress response occurs too hard and too often, metabolic and physiological changes may occur. The health problems that may result are for example depression, diabetes, higher susceptibility to infection and a higher risk of cardiovascular disease. (65)

Differences in health behaviour have been proposed as a mechanism. For example, smoking is an important health behaviour that is implicated in the explanation of the observed social inequalities in health (67). Hilary Graham has shown that there is a 'dose-response' relationship between disadvantage in life and prevalence of smoking for women in Britain. Experiences of disadvantage such as childhood poverty, leaving school early, moving into early parenthood all add up to increase the risk of being a

smoker (68). Below, the ways income and employment status are associated to health are discussed in more detail.

2.3.3 Income, financial difficulties and poverty

The link between income and health has been shown repeatedly (69, 70). The relationship between income and health is described as curvilinear, so that a small increase in income may lead to a large improvement in health at the lower end of the income scale while we find diminishing returns in the higher end of the income scale. Not only absolute income is important, but as we are social beings, the relative aspect is also relevant. As early as 1776, Adam Smith (71) described in his book on *The Wealth of Nations* how the socially-defined necessities made it nearly impossible for any member of society to appear in public without leather shoes. Not to have what is considered as basic necessities in a society thus results in shame. In Peter Townsend's famous poverty definition, poverty must be seen as relative to the demands of society and those who live there:

“Individuals, families and groups in the population who lack resources to obtain the types of diet, participating in activities and have the living conditions and amenities which are customary, or at least widely encouraged or approved, in the societies to which they belong. Their resources are so seriously below those commanded by the average individual or family that they are, in effect, excluded from ordinary living patterns, customs and activities” (72) p 31.

As Amartya Sen notes, income in itself is only a means to an end. Money and living standards are thus instrumental in the life that a person is able to lead and what choices and opportunities she has. Drawing on Smith and Townsend respectively, Sen writes in his influential book *Inequality reexamined* (73) that in relatively rich countries,

“more income may be needed to buy enough commodities to achieve the same social functioning, such as ‘appearing in the public without shame’. The same applies to the capability of ‘taking part in life of the community’” p 115.

Hence, the experiences of financial difficulties must be understood in their socio-cultural context. Therefore, we may find poverty also in welfare societies with a generally high living standard. According to Shaw and Aldridge (74) consumer culture is an inherent part of post-modern society. Consumerism may be defined as characterised by theories of freedom of choice and consumption as symbolic (75) and serves both social and psychosocial purposes (76). In the line of Sen's reasoning, for people living under financial difficulties who are not able to take part, it may pose a strain.

Poverty is also described as a gendered phenomenon, as women are more likely than men to experience poverty and further their experiences may differ from those of men (77). In poverty research, the notion of shame is repeatedly brought up as a central issue as to how poverty affects individuals. The concept of poverty includes both material and social dimensions. Social exclusion has been defined both as a cause of poverty

and a consequence of poverty. There is agreement however that the process concerns lack of resources leading to exclusion from a minimum way of life (78). Although the inability to take part in social activities in itself is a capability deprivation, this in turn can lead to other deprivations by denial of social and economic opportunities (79).

Self-reported financial hardships (or economic difficulties/financial strain/financial stress etc in the studies comprising this thesis, the terms have been used interchangeably as there is no agreed definition) is a subjective measure of problems making ends meet. It is often used as an indicator of poverty. It may be, but does not necessarily have to be, linked to low income. In several studies, financial hardships has been found to be an important explanatory factor for the excess risk of poor mental health among lone mothers (80-82). Financial hardships has also been linked to poor self-rated health of parents (83) and increased risk of being exposed to violence (84). Analysis of data on Britain, Italy and Sweden from the European Social Survey, although based on small numbers, show that financial difficulties are common among lone mothers and especially among those not employed (see table II). Being non-employed is one of the reasons for having a low income. Others include having old debts that make pay too low to get by on or having a low paid or a part time job.

Table II. Exposure to financial difficulties (in per cent) among lone and couple mothers aged 16-59 years, in Britain, Italy and Sweden. Data from European Social Survey (ESS) conducted 2002-2006, rounds 1 and 2.

	Britain		Italy		Sweden	
	<u>Lone</u> n 271	<u>Couple</u> n 495	<u>Lone</u> n 62	<u>Couple</u> n 463	<u>Lone</u> n 102	<u>Couple</u> n 536
Hard time managing on income						
<i>Non-employed</i>	50.3	20.8	50.0	24.5	56.7	16.8
<i>Employed</i>	24.2	12.1	26.2	10.5	30.6	6.1
Hard to borrow money						
<i>Non-employed</i>	61.7	32.6	68.4	33.2	46.7	29.9
<i>Employed</i>	36.8	18.9	33.3	23.9	27.1	14.7

2.3.4 Employment status

Employment may impact on health in several ways. Many studies have found that combining employment and having children is good for the health of women, including lone mothers (85-88). The most apparent benefit is that employment generates income, which can be transformed into health enhancing resources. Opportunities for social networking and buffering the stressful effects of other roles are additional benefits (89, 90).

There are however aspects of employment that may be negative and often these are socially patterned. In manual work we more often find adverse physical working conditions, such as exposure to heavy lifting, shift work, dangerous chemicals etc. (91). Highly stressful work or precarious employment are other examples of how work may be damaging to health. Employments in the care sector, where especially women are employed have been found to be especially demanding. Additionally, feelings of role overload and role conflict may be detrimental to the health of women (92, 93). Trying to juggle children and employment may also lead to time poverty for mothers and lone mothers in particular (7, 94). Taking up employment as opposed to living on benefit (when that is an option) is not only a matter of financial consideration; working when you have children is also a matter of moral consideration, as discussed by Duncan and Edwards (56). The notion of gendered moral rationalities (56) was introduced to reflect the collective and social understandings concerning how paid work and motherhood should be negotiated, and helps us to understand the employment decisions of mothers in different countries.

There are many reasons for women's economic inactivity, which may also differ between countries. The group of non-employed is heterogeneous, both between and within countries. A study analysing women's disconnection from the labour market in England showed that (excluding students) this group included for example: full time homemakers; retired people; and those who are not in employment because of long term illness or disability (95).

Further, low employment rates could be an indication of the difficulties in combining employment and mothering. Grant (95) found that British mothers regard paid work as an important aspect of self-esteem and indeed of motherhood. Of those who are economically inactive, there may be large proportions who want to work, but who are restrained from doing so (95).

The employment rates among mothers vary between welfare states. For lone mothers to be able to take on employment, family policies such as possibilities for affordable childcare arrangements are crucial; having pre-school children is related to lower employment rates (42). The high employment rates among Swedish lone mothers from all social groups may be attributed to the availability of childcare and the job opportunities in the public sector. Employment rates of mothers in Sweden are among the highest in Europe, around the year 2000, 78 per cent of mothers with children below 6 years of age were in employment, which can be compared to Italy (46 per cent) and Britain (56 per cent) (96).

Maternal employment is strongly linked to low poverty rates among children, and especially so for children of lone mothers (97). Recent studies show that labour market attachment has become increasingly important for alleviating poverty risks (27). Often, eligibility to welfare resources is connected to participation on the labour market. Non-employment could thus result in poverty. The level of social protection in different welfare states may act as a mediator of the effects of not having gainful employment on the economic situation of the individual (91).

In countries where homemaking is common, this group may contain mothers with poor health who are not able to be gainfully employed. Women who are homemakers report worse health than those who are employed (98). It is reasonable to think that there is a certain health selection into non-employment (99), which may be particularly pronounced in countries where employment rates are high. As well as a difficult financial situation may lead to poor health, poor health may lead to lower income, by making it difficult for the individual to have gainful employment. Poor health and financial difficulties may thus reinforce each other.

2.4 CHANGES IN SWEDISH SOCIETY AND POLICY

As discussed, the health impact of exposures such as not having gainful employment or financial difficulties may depend on the social context and policy context. However this context may of course also differ between time periods. In the early and mid-1990s, Swedish society went through great changes, both regarding the social context and policy environment. In the second part of the 1980s, Swedish economy experienced a boom, which was followed by a deep recession in the early 1990s. The recession led to high unemployment figures not thought possible a few years before. The effects of the recession are difficult to disentangle from the subsequent policy changes in welfare state arrangements. Policy changes were deemed necessary to combat the crisis in public finances (100). Reductions in welfare benefits and restricted eligibility were introduced. Areas most affected by cutbacks were social services and health and medical care (101). The costs of living increased following the policy changes and reduction in welfare state benefits. For families with children, many expenses increased. Not least the costs of housing which increased by 30 per cent in 1990-1993, primarily due to changes in policy such as tax reform (102, 103). During the economic crisis, most households experienced a decrease in disposable income. Mainly, however, those affected by this were immigrants, youth and lone mothers (104). Following the upswing of the economy during the latter part of the 1990s, many income maintenance and social insurance systems were reinforced to nearly the level before the crisis.

During the economic crisis, the proportion of lone mothers with gainful employment declined and they have lagged behind other family types in income since (105, 106). When jobs are scarce, it may be more attractive for employers to hire couple mothers who can share the burden of staying home with ill children with a partner. The proportion of lone parents with a low income standard (below 60 per cent of median income) increased from 11 per cent in 1999 to 27 per cent in 2009 (106). In 2008, child

poverty was more than three times higher among children of lone parent compared to children of couple parents, and for children of lone parents born outside Sweden, the difference was even more pronounced (107).

3 AIM

To increase knowledge on how societal factors affect the health of lone mothers in different policy contexts, by specifically studying financial strain and employment status in relation to health. A key issue is also to consider the social differentials within the group lone mothers.

3.1 RESEARCH QUESTIONS

- Is economic strain associated with excess risk of poor health among lone mothers in Sweden, and does time period and income group matter?
- Have social and policy changes in Sweden during the 1990s had adverse influence on the health of lone mothers?
- How is non-employment and health associated among lone and couple mothers in countries with different family policy models?
- What are the experiences and strategies of everyday life of Swedish lone mothers with financial strain in relation to maintaining health?

4 MATERIALS AND METHODS

This thesis was built on both quantitative and qualitative methods. In the quantitative studies we attempted to assess the strength of the associations between certain risk factors/exposures (financial strain and non-employment) and the outcomes chosen (Studies I, II and III), and whether these differ in different contexts such as place (Study III) and over time (Studies I and II). The qualitative approach (in Study IV) was used to gain a deeper understanding of lone mothers' own perceptions of the relation between financial strain and health. The research questions and the material chosen for analysis of each question are described in Figure III below.

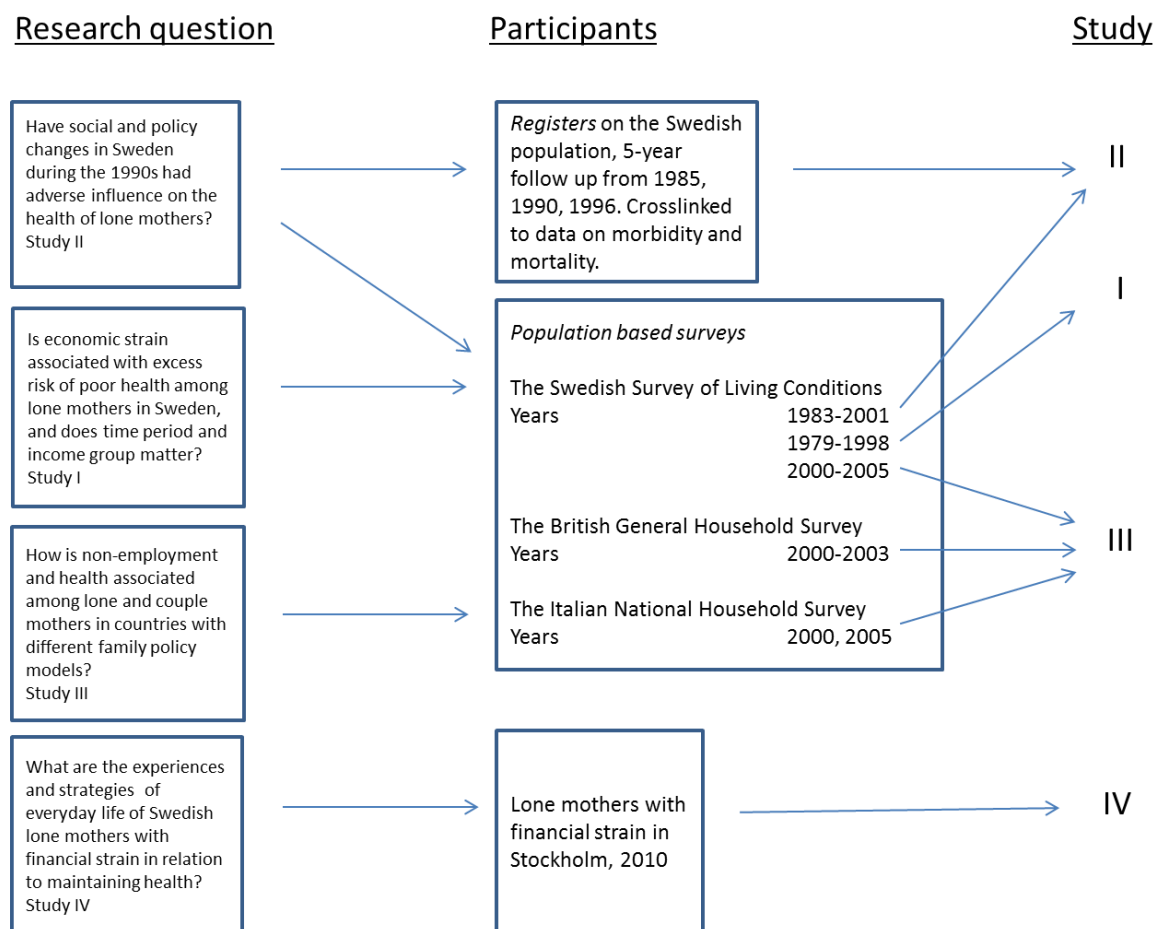


Figure III. Research questions and participants Studies I-IV

4.1 DATA SOURCES

The studies in this thesis were based on several data sources. Besides national survey data (Study I, II and III) and routine statistics from health-data registers (Study II), qualitative data generated from focus groups (Study IV) were used. All of these are described in detail below.

4.1.1 The Swedish Survey of Living conditions (Study I-III)

The Swedish Survey of Living conditions (ULF) contains both a cross-sectional and a panel part. It is conducted annually since 1974 by Statistics Sweden (108). The ULF is a continuous series of annual surveys of the living conditions of the population draws a random sample of approximately 7,500 persons from all permanent residents in Sweden, aged between 16 and 84 years, and is administered by face-to-face interviews². The response rate has varied over the years but ranged between 75 and 86 per cent during 1979 and 2005 (the years used in Study I, II and III with the cross-sectional data).

4.1.2 The British General Household Survey (Study III)

The General Household Survey (GHS) (109) is a continuous, cross-sectional survey of households in Britain, administered by face-to face interviews to all adults aged 16 and over in the selected households. It is based on a representative random sample of the population. For the years used in Study III; 2000-2003, the response rate was between 67 and 72 per cent.

4.1.3 The Italian National Health Survey (Study III)

The National Health Survey is administered both by face-to-face interviews and self-complied questionnaires, on a sample representative of the non-institutionalised population in Italy. For the years used in Study III; 1999-2000 and 2004-2005, the response rate was 87 and 84 per cent respectively (110, 111).

² In 2006, the ULF was incorporated into the EU-SILC and the administration of the interviews as well as the number interviewed changed.

4.1.4 The Swedish Population and Housing Censuses of 1985 and 1990 and the Total Population Register (Study II)

As from 1930 and until 1990, a census took place every fifth year. The censuses gathered information on age, sex, education, occupation, and employment. Every household was obliged to answer the census and one member of the household had to list all household members, their relation and personal identity number. After 1990, no census has been conducted and information is therefore obtained from separate registers constituting The Total Population Register. The Total Population Register is maintained by Statistics Sweden, it is based on tax administrative data and contains information on age, sex, marital status, country of birth and place of residence. The unique personal identity number that is assigned to each Swedish resident enables linkage of the population based registers to other national registers such as those on morbidity and mortality described below.

4.1.5 The Patient Register and the Cause of Death Register (Study II)

The Patient Register (<http://www.socialstyrelsen.se/register/halsodataregister/-patientregistret>) covers all publicly provided inpatient care since 1987. The county councils supply information on for example data on the patient and medical data. The diagnoses are based primarily on the judgements of the clinician in charge. The Cause of Death Register (<http://www.socialstyrelsen.se/register/dodsorsaksregistret>) includes information on all deceased persons who at the time of death were recorded as residents in Sweden, regardless of where the death has occurred (in Sweden or abroad). The cause of death is derived from medical death certificates. Both registers are maintained by Sweden's National Board of Health and Welfare.

4.2 SPECIFICATION AND MEASUREMENT OF DEPENDENT VARIABLES

In this thesis, the focus is not on good health but rather on poor health and health problems. We use both self-reported health measures and cause-specific mortality and morbidity requiring in-patient care as health outcomes. The outcome measures are described in more detail below.

Self-rated health (SRH) was used as outcome measure in Study I, II and III. SRH is widely used as a health indicator in epidemiological studies, and is recommended as a health indicator by WHO (112). It is also considered a good proxy of future morbidity and mortality (113-115). SRH may at first sight seem to be a simple measure, but it is in fact both complex and contradictory. A recent debate as to what SRH actually measures, whether it is "true health" or perceptions of health, and whether the individual health assessment is an on-going process or something being made at the moment the question is posed, has taken place (116). In this discussion, Jylhä (117)

argues that self-rated health (or self-perceived health) is indeed related to perceptions of health and suggests that individuals “update” their health assessment upon being asked the question on self-rated health, with a focus on present health but in the context of their health history.

Until 1995, the question posed in ULF was “*How do you consider your general health? Is it 1) Good, 2) Bad, 3) Something in between*”. In 1996 the question was given five response alternatives; *very good, good, all right, bad, very bad*. (Study I, II and III). In the British GHS data used in Study III, SRH was measured on a three-point scale, ranging from “*good*” to “*not good*”. In similarity with the Swedish data, the Italian data measured SRH using a five-point scale ranging from “*very good*” health to “*very poor*” health.

In the studies of this thesis, SRH was dichotomized so that all answers less than good were regarded as less than good SRH (or, from here on; poor health). It has been argued that the change from three to five response alternatives in the ULF may have led to a lower prevalence of poor SRH (84), however this has not been established. SRH has been shown to be useful both within countries and in country comparisons (118-120). However, measures like SRH may be culturally biased (114) and its properties across countries are not fully understood (121), therefore we looked at the excess risk among lone mothers within each country (Study III).

Limiting longstanding illness (LLI) was used in Study II. It is a commonly used health indicator (122), which was constructed from two questions. If the respondent answers affirmatively to “*Do you suffer from any long-standing illness, after-effects from an accident, from disability or from any other ailment?*” and responds “yes” to the following question “*Does your illness/disability restrict your work or limit your daily activities?*” she is considered having LLI.

In Study II we analysed mortality and morbidity requiring in-patient care. Classification of mortality and morbidity was made using the ‘International Classification of Diseases’ (ICD) version 9 until 1996 and thereafter version 10. It should be noted that severe morbidity and mortality are rare in the age group under study.

The cause-specific morbidity studied included suicide attempt (ICD9 E950-E959, E980-E989, ICD10 X60-X84, Y10-Y34), alcohol related morbidity, (ICD9 291, 303, 305.0, 357.5, 425.5, 535.3, 571.0-571.3, E860, E980+980, ICD10 E24.4, F10.1-F10.9, G31.2, G62.1, G72.1, I42.6, K29.2, K70, K86.0, 035.4, P04.3, Q86.0, T51, Y90.1-Y90.9, Y91.1-Y91.9, Z50.2, Z71.4), psychiatric conditions requiring in-patient care (ICD9 290-319, ICD10 F00-F99), morbidity following violence (ICD9 E960-E969, ICD10 X85-Y09). The cause-specific mortality studied (for diagnoses see morbidity) included death following suicide, substance abuse (alcohol related as above and narcotics related diagnoses; ICD9 304, 965.0, 968.5, 969.6, 969.7, ICD10 F11.1-F11.9, F12.1-F12.9, F13.1-F13.9, F14.1-F14.9, F15.1-F15.9, F16.1-F16.9, F18.1-F18.9, F19.1-F19.9, O35.5, P04.4, T40.0-T40.3, T40.5-T40.9, T43.6, Z50.3, Z71.5), and finally violence.

Our intention was to focus on conditions believed to be influenced by change in social conditions requiring hospital care or causing death. Therefore, conditions and causes of

death which would otherwise have been of interest (but may take longer to develop), such as ischemic heart disease and lung cancer were not included.

4.3 SPECIFICATION AND MEASUREMENT OF SOCIOECONOMIC VARIABLES

4.3.1 Education

In Study II, education was dichotomized as compulsory school (nine years of schooling) or higher education. In Study III we used the international standard classification of education (ISCED) for highest attained level of education (123). Three groups were formed, ISCED levels 1 and 2 were grouped into “low education”, levels 3 and 4 were grouped into “medium education” and the final two levels into “higher education”.

4.3.2 Socioeconomic group

The classification of socioeconomic group was based on present or most recent occupation according to the Statistics Sweden classification (124). In Study I, occupational class was divided into five categories; higher non-manual, lower non-manual, skilled manual, unskilled manual and other. Farmers and self-employed were categorized according to the size of their business and individual level of education. Students and others who could not be classified were categorized as ‘other’. In Study II, socioeconomic group was divided into three categories; non-manual, manual, and other.

In Study III, socioeconomic group was classified into three groups, based on current or last occupation; “non-manual”, “manual” and “never worked” (in which respondents who could not be classified in any other group were included).

4.3.3 Income

Disposable income was used in Study I. Disposable income is a proxy of the family’s ability to participate in society and refers to income after taxes have been deducted and income transfers have been added. We chose to use income quintiles rather than absolute levels of income to allow for comparisons over time. The income quintiles were based on deflated (income was adjusted for inflation to allow for pooling of interview years) and equivalised disposable household income and were constructed using the whole population. Consumption weights from Statistics Sweden were used, in order to adjust for family size and composition. The income quintiles were calculated excluding 16-24 year olds living with their parents, students, self-employed and

farmers since the income in these groups may not be representative of their living conditions.

4.3.4 Employment

In Study I, employment was classified as whether the respondent had employment the week before the interview or not. In Study II (in the part based on ULF data), employment was further divided into full time (35 h/week or more), part time (less than 35 h/week) or unemployed (long term unemployed or seeking work) and non-employment (all others).

Information on employment drawn from population registers (in Study II) was categorized as working or not and measured at the beginning of the study period for each cohort. Working meant earning at least 200 SEK/month in 1985 or 250 SEK in 1990. For the 1996 cohort, working meant being employed for at least 1 h/week in November 1996.

A specific sub-group within the ‘economically inactive’ category (people of working age who are not available for employment and not seeking it due to a variety of reasons) were singled out for separate analysis in Study III and these are homemakers; people of working age who are not employed as they stay at home to care for the family (children or elder relatives). This represents a significant sub-group in the context of motherhood and employment. In Study III employment was divided into; “employed” which included mothers working full time or part time or unknown hours as well as self-employed, “unemployed” according to the ILO definition, and “economically inactive” (all others). From the economically inactive, we separated “homemakers” as these make up a large share of the British and Italian mothers. Since Swedish homemakers were few (n below 50) these were not analysed separately. “Non-employed” referred to all those not working.

4.3.5 Financial hardships

Several measures of financial hardships were used in the studies comprising this thesis, and these reflect somewhat different dimensions. Economic strain measure the extent to which the household’s resources have been at least temporarily exhausted. Lack of a cash margin in turn focusses on the ability to manage an unexpected cost if that would be necessary and is thus more hypothetical but also says something about financial security. The level of income that is offered by the social security system’s ultimate safety net may be seen as a consensus of the minimum level of income that is accepted in a society, and has often been used in measuring poverty (125). It is a relative measure, which due to political decisions may or may not rise in line with average income in society. Seeking and being granted social assistance from the authorities is an indicator of very low income. One difficulty with this measure is that not all those eligible for social assistance seek it, partly due to related stigma (126).

Difficulties in managing running expenses were measured using *economic strain* (Study I and II). In the ULF, the question posed was: “Has it during the last 12 months happened that you have had difficulties managing the running expenses for food, rent, bills etc)” (yes/no). The question was not posed in 1984 and 1985.

Lack of cash margin (Study II) was defined according to the question whether or not the respondent would be able to raise a certain amount of money (14 000 SEK in 1999) in one week if needed.

Receipt of social assistance was included in Study II as a marker for poverty. From the ULF it was coded as living in a household that has received social assistance in a particular year. In the population based registers, social assistance was coded as *receipt of social assistance* for any member of the household. It was available for the cohort starting 1990 and onwards.

4.4 STUDY POPULATION IN STUDIES I-III

In Studies I-III, mothers living with a partner (married or cohabiting) were classified as couple mothers. A lone mother may or may not be living with other adults in the household, but does not live with a partner.

In Study I, the study population consisted of lone and couple mothers in Sweden aged 16-54 years who live with at least one of their children aged 18 years or less. From the ULF data 1979-1998, we selected 3186 lone mothers and 19122 couple mothers. Data on income was available from 1986 and onwards, including 1896 lone mothers and 15137 couple mothers.

In Study II, the study population consisted of mothers in Sweden aged 20-59 years, who live with at least one of their children aged 18 years or less. In the ULF, this yielded 2816 lone mothers and 16376 couple mothers. To analyse conditions requiring hospital care or causing death three cohorts of mothers were formed from register data (beginning 1985, 1990 and 1996). These included all mothers in Sweden aged 20-54 years with children aged 0-15 at the start of each study period. In 1985, 99531 lone and 786889 couple mothers were identified. In 1990, 113367 lone and 754883 couple mothers were identified. In 1996, 182410 lone and 768130 couple mothers were identified.

In Study III, the study population consisted of mothers aged 25-59 years who live with at least one of their children aged 18 years or less, in Britain, Italy and Sweden respectively. Since in this study we analyse employment and use education as a measure of socioeconomic position only mothers from 25 years of age were included. In the British GHS data, the years 2000-2003 were pooled, yielding 1573 lone and 5293 couple mothers. In the Italian data we used the years 1999-2000 and 2004-2005, where we identified 4031 lone and 38841 couple mothers. In the Swedish data from the ULF for the years 2000-2005 were pooled and 867 lone and 4260 couple mothers were identified.

4.5 STATISTICAL ANALYSES STUDIES I-III

In Study I-III, our health outcomes were binary (taking the value 0 or 1), and logistic regression analysis was used. The choice of logistic regression was made since this is a straightforward and common method allowing statistical adjustment for other factors, which enables the reader to compare results from our studies to other studies in the field. It has been argued that when the prevalence of the outcome is high (above 10 per cent) as is the case for poor SRH, there is a risk for overestimation of the odds ratios (127). Thus, the odds ratios found might be an overestimation of the relative risk in these studies. Poisson regression was used to calculate relative risks of mortality and severe morbidity with 95 per cent confidence intervals (CI) as estimates of effects in Study II, using person months under risk.

Statistical interaction was assessed by adding interaction terms in the regression models in Study I and II. The interaction terms allow the magnitude of the association between exposure and outcome to vary between different strata. This is done to improve the fit of the model, and does not imply biological interaction.

The explained fraction was calculated to estimate the proportion of excess risk among lone mothers for poor SRH (Study I and II) and hospitalisation and mortality (Study II) explained by economic strain (Study I) and non-employment and social assistance reciprocity (Study II), using the formula:

$$(XF) = [(OR-1)-(OR^*-1)]/(OR-1)$$

where OR is the odds ratio before adjusting for the exposure in question (here, economic strain), and OR* is the odds ratio after adjustment (128).

In Study III, we assessed interaction effects on health between being lone and non-employed by the synergy index (SI) (124) using a SAS program (127). The analysis investigates whether there are cases that only occur in the presence of joint exposure, i.e. the effect of one factor depends on the person's status of the other factor.

The synergy index was calculated as:

$$SI = [RR_{11}-1]/[(RR_{10}-1)+(RR_{01}-1)]$$

RR₁₁ is the relative risk (RR) for the doubly exposed (here: exposed to non-employment and lone motherhood) compared to the non-exposed group, RR₁₀ and RR₀₁ are the relative risks where only one of the risk factors are present, respectively. In this study, since we use cross-sectional data we use the odds ratio (OR) instead of RR. The results were obtained through logistic regression, controlling for age group and level of education. The synergy index has been debated, see for example the discussion between Rajaleid et al. (129) and Lawlor (130).

4.6 DATA COLLECTION AND ANALYSIS STUDY IV

The qualitative study used focus group discussions to gather data. Focus groups are useful when studying how a certain group thinks about a phenomenon and focuses socially shared, culturally based perceptions, experiences, opinions and attitudes (131).

4.6.1 Recruitment and sample

The call was for lone mothers having difficulties to make ends meet. The definitions of being a lone mother as well as in financial strain were self-defined by the participants, thus following the participants' own experience of their reality. Participants were recruited from Makalösa föräldrar, which is Sweden's largest non-governmental organisation (NGO) for lone parents, a NGO gathering lone mothers with financial difficulties; Barn till ensamma mammor, (Children of lone mothers) and from a charity organisation; Stadsmissionen. Additionally we advertised in public places, contacted key persons, and employed the snowball method.

Following a test focus group with two participants conducted in fall 2009 (not included in the final analysis), four focus groups were conducted during spring 2010, with a total of 15 participants. The final focus groups were heterogeneous in terms of age and level of education and ethnicity of the participants. The participants were all residents in Stockholm County.

4.6.2 Data collection

At each focus group discussion, a moderator and assistant note taker were present, both female. All focus groups were moderated by the same person. During the focus group discussions, participants were asked questions about whether personal financial circumstances affect their health, and if so how. They were also asked about their views on their personal ability to influence their health status, and more generally what can be done to improve health among lone mothers. The interview guide (see interview guide page 58) was semi structured and deliberately broad, with probes that would be asked if necessary. Time was left at the end of each focus group to ask if the participants would like to add anything or wanted to bring something up that had not been discussed. The focus group discussions were recorded and transcribed verbatim. To enable the reader to envisage the empirical level in relation to the analytical level, quotations (translated to English by the first author) are included in the article to illustrate the analyses. The names of all participants have been changed to pseudonyms.

4.6.3 Data analysis

To facilitate analysis of the transcribed material from the focus group discussions, we systematically categorized the material employing thematic analysis (132). The recordings were listened to several times and the transcripts were read and reread. The focus group discussions were analysed both separately and together and the categorisation involved repeatedly comparing the findings to the rest of the material to validate them. We searched for dominating themes, which reoccur and can be said to define central parts of the conversation sequences, examples of dominating themes were working, exclusion and parenthood. Within these, variations can be found, i.e. the codes discuss different aspects of a theme. The themes are not mutually exclusive; they are interdependent and sometimes overlap. The categorization was partly theory-driven and partly derived from the material.

We employed discourse theory to analyse the material from the focus groups. Discourse theory is based on an epistemological and ontological perspective of the role of language in the construction of the social reality (133). Discourse is here understood as a group of ideas or a patterned way of thinking that are coherent in space and time and can be identified in text and talk (134, 135). This study was inspired by Critical Discourse Analysis (CDA) as described by Fairclough (136). Different discourses can be described as different ways of representing aspects of the world (137). Discourses are regulating, as they regulate ways of thinking and communicating about reality. Further it is fairly common that discourses contain normative elements, to different degrees. Since a discourse is regulating and may be normative, it may produce exclusion through discursive practice. In the discursive practices, discourses are enacted, through the discursive production and shaping of individuals' reality perception as well as agency (136).

Part of the discursive practice is how people talk about themselves, and thus position themselves within the discourse. The concepts of *positioning* and *othering* were used to analyse the discursive practices. Subject positioning as described by Laclau and Mouffe (138) provides different filters through which we see and act in the world, as for example a parent, a worker or a citizen. *Othering* can be thought of as a discursive practice of *positioning*, influencing both thoughts and actions concerning those considered as *others* (139). We wanted to highlight the agency of the participants in managing living in financial strain and operate within discourses. The idea of agency implies that individuals are autonomous and purposive actors, capable of a degree of choice. In this study, we understand the concept of agency as constrained by perceived available options, partly determined by resources and obligations (family-related as well as societal). People in poverty employ different forms of agency, in this study we focus on *getting by*, *getting out* and *getting organised*, as described by Lister (139).

4.7 ETHICAL CONSIDERATIONS

All studies have received ethical approval by the Regional Ethics Committee in Stockholm, Dnr 2004/5:6 and 2009/1046-31.

The national population surveys from Britain and Italy (Study III) and Sweden (Study I-III) were anonymised. In Study II, after the individual record linkages of the registers had been made the datasets were anonymised.

The participants in the qualitative study (IV) were informed of the purpose of the study, and that they were free to leave the focus group at any time, without giving any reason as to why and all gave written consent to participate. They were also informed that the discussions would be recorded and transcribed, and that their names were to be changed to pseudonyms in the final publications. We were aware that the focus group discussions might touch upon sensitive subjects, and took care in not letting it get too personal, in order to try to avoid any participant to feel she had exposed more than she wanted to. The participants were also informed that we would contact them when the study was finished and that all who were interested were welcome to join a presentation of our findings where they also would have the opportunity to comment on these.

Regarding all studies, it is important that results are presented in a manner that does not cause stigma. The intention, throughout the work of this thesis, has been to highlight the living conditions and health among lone mothers with a view to informing policy makers.

5 RESULTS

5.1 STUDY I

Research question:

Is economic strain associated with excess risk of poor health among lone mothers in Sweden, and does time period and income group matter?

Economic strain was more common among nearly all groups of mothers during the 1990s compared to the 1980s, with large increases for lone mothers particularly among higher non-manual workers, mothers aged 25-44 years as well as Swedish born mothers. Economic strain was associated with poor SRH throughout the period studied, and explained 42 per cent of the excess risk of poor SRH for lone mothers compared to couple mothers (adjusted for age, time period, born in Sweden/foreign born, employment and socio-economic group). Mothers in the lower income quintiles reported higher prevalence of poor SRH, in a dose-response relation. The proportion of lone mothers in the lowest income quintile increased significantly in 1990-1998. Introducing economic strain in the regression model reduced the OR for all income groups, but especially for the group with lowest income. Furthermore, a deterioration of health among vulnerable groups such as the youngest, unskilled manual workers and the non-employed was found over time. Of the interaction terms included (economic strain x time period; time period x motherhood type; economic strain x motherhood type; time period x motherhood type x economic strain), only time period x economic strain was significant, indicating that the relative difference in poor SRH between those who had and those who had not experienced economic strain had decreased in the later time period. The association between economic strain, motherhood type and poor SRH did not change over time, or between income groups.

5.2 STUDY II

Research question:

Have social and policy changes in Sweden during the 1990s had adverse influence on the health of lone mothers?

Exposure to health risks such as lack of cash margin and economic strain increased over the time period studied. The prevalence of poor SRH among lone mothers also increased. Smoking, country of birth, non-employment and receiving social assistance taken together accounted for 56 per cent of the elevated risk of poor SRH among lone mothers in comparison with couple mothers over time. The most pronounced increase in poor SRH was found among the un/non-employed lone mothers. There was a significant interaction between non-employment and the latest time period, suggesting that the relative difference in poor SRH between those who were and were not non-employed had increased in the latest time period.

Adjusting for employment had a larger impact on the excess risk of hospitalization in the cohort of 1996 than in previous cohorts, with explained fractions ranging from 13 per cent (suicide attempt) to 19 per cent (violence). Not being employed and receiving social assistance taken together accounted for between 44 per cent (suicide attempt) and 56 per cent (violence) of the excess risk of hospitalisation. Interaction analysis of changes over time showed a significant decrease in relative risks over time in the cases of psychiatric morbidity (1985/1990) and alcohol related morbidity (1985/1990 and 1990/1996) after adjustment for age and employment status. Interaction analysis of changes over time showed no significant differences between the time periods regarding the relation between lone motherhood and mortality. Attenuation of the relative risks after adjustment for receipt of social assistance and employment were most apparent for the cohort of 1996, where non-employment and social assistance explained between 33 per cent and 49 per cent of the excess risk of mortality among lone mothers in comparison with couple mothers.

There was however no evidence of increased differentials in poor SRH, hospitalization or mortality over time between lone and couple mothers.

5.3 STUDY III

Research question:

How is non-employment and health associated among lone and couple mothers in countries with different family policy models?

Lone motherhood in Britain, Italy and Sweden was associated with increased risk of poor SRH (OR with CI adjusted for age group; Britain 1.83 (1.63-2.05); Italy 1.11 (1.04-1.19); Sweden 2.2 (1.87-2.59)). Poor SRH was more prevalent among the non-employed mothers compared to those employed, in all countries.

Lone motherhood in Britain, Italy and Sweden was associated with higher risk of poor SRH. Non-employment was significantly associated with a higher risk of poor SRH in all countries (OR with CI adjusted for age group and non-employment; Britain 1.70 (1.52-1.90); Italy 1.13 (1.08-1.18); Sweden 2.22 (1.91-2.59)). Non-employment only marginally contributed to the excess risk of poor SRH among lone mothers found in Britain and Sweden. However, there were indications of synergy effects between lone motherhood and non-employment, causing a higher risk of poor SRH than would be expected from a simple addition of these exposures, in all countries. Synergy Index for combining the exposures lone motherhood and being non-employed (adjusting for age and level of education) was 1.27 (0.92-1.75) for Britain; Italy 2.25 (1.14-4.42); Sweden 2.12 (1.42-3.16). Patterns in synergy effects regarding lone mothers with pre-school children differed between the countries.

The synergy effects indicated may be attributed to health selection and health impact. Results were discussed in relation to different family contexts and living conditions.

5.4 STUDY IV

Research question:

What are the experiences and strategies of everyday life of Swedish lone mothers with financial strain in relation to maintaining health?

The participants expressed that the constant stress and anxiety produced by living in financial hardships permeated all aspects of life and caused health problems. Shortage of time and energy further restrained the possibilities of maintaining health and participating in society. The causes of the health problems were conceived as hard to address by participants because of their perceived restrictions in agency.

The findings showed how the normative power of the discourses of consumerism and healthism produced feelings of insufficiency and stress. The inability to provide many of the basic necessities and adhere to norms of consumerism limited social participation and posed strains on parenting. Discourses of welfare society as well as nuclear family set normative standards that were difficult for the participants to reach, for example being a self-sufficient breadwinner and living in a traditional two-parent family.

The expressed difficulties in getting a job indicated that the discourse of the nuclear family where lone mothers are positioned as *other* impacts on the ability of lone mothers to land a job and thus produces further exclusion, both in financial and social terms. Further, working and being a lone mother with responsibility for children may conflict with the notion of being a good parent. In the focus group discussions, this was related to difficulties in holding a job.

The discursive practice of othering experienced by the participants in different aspects of their lives generated feelings of exclusion. A discourse of otherness runs through all themes and is central to how participants in many ways related to being a lone mother in society.

6 DISCUSSION

6.1 MAIN FINDINGS

This thesis contributes to the knowledge on how financial strain and employment status are related to the health of lone mothers in different policy contexts, and social differentials in health among lone mothers. The prevalence of financial strain and level of employment are regarded as influenced by policy and the social context, and as individual level factors that have implications for health. The main findings from the four studies in this thesis can be summarized as follows:

- Economic strain is associated with poor SRH and contributes to the excess risk of poor health among lone mothers in Sweden. A polarisation of health was noticed among lone mothers over time, with improved health among the three highest income quintiles, and deterioration of health among the two lowest income quintiles. The association between economic strain, motherhood type and poor SRH did not change over time, or between income groups.
- The constant stress and anxiety produced by living in financial strain permeated all aspects of life and were perceived as causing health problems among the focus group participants. Causes of health problems were conceived as hard to address due to experienced restrictions in agency.
- Despite increased exposure to health risks such as lack of cash margin and economic strain, and an increased prevalence of poor SRH for lone mothers in Sweden 1983-2001, we did not find evidence of increased differentials in poor SRH, hospitalization or mortality over time between lone and couple mothers.
- Non-employment only marginally contributed to the excess risk of poor SRH among lone mothers found in Britain and Sweden but there were indications of synergy effects between lone motherhood and non-employment, causing a higher risk of poor health than would be expected from a simple addition of these exposures, in Britain, Italy and Sweden.

6.2 FINANCIAL STRAIN AND HEALTH

Study I showed that financial strain contributed to the excess risk of poor health (measured as poor SRH) among lone mothers in Sweden. Adjusting for economic strain in the regression model reduced the OR for poor health for all income groups, but especially for the group with the lowest income. The association between SRH, lone motherhood and economic strain did not change from the 1980s to the 1990s. However, the proportion of lone mothers found in the lowest income quintile increased significantly from the 1980s to the 1990s. These findings are supported by other studies that show that following the economic crisis, the proportion of lone mothers with gainful employment declined and that they have lagged behind other family types in income ever since (84, 105-107).

6.2.1 Experiences and strategies of Swedish lone mothers living with financial strain

Living with financial strain may influence health in a multitude of ways. The focus group discussions in Study IV provided some insight into possible mechanisms. According to the participants in Study IV, financial strain influenced all aspects of life and caused health problems. Making ends meet is a basic type of everyday agency. A lot of effort had to be put into simply getting by. As shown also by Gardberg Morner (140) in a study analysing lone mothers' subsistence strategies, the participants were and indeed also had to be, very active in making ends meet. Hjort and Salonen (141) interviewed families with dependent children who received housing allowance (as an indicator of financial difficulties). In line with the findings in Study IV, their findings show that the households experienced a permanent insufficiency in terms of money, which led to constant prioritizing and worries both for the present and for the future.

As discussed by the participants, the constant stress and anxiety produced by living with financial strain impacted on health and wellbeing, and was related to lack of appetite, sadness and problems with sleep. This is in line with the theories postulating that psychological demands and challenges in life causes stress that may be detrimental to health (65). It was recognized that the difficulties in maintaining health or taking care of oneself in a preventive manner would cause further health problems in the future. Additionally, it led to feelings of guilt. However, the health problems experienced were considered as hard to address due to structural restrictions and restrictions in agency. Lack of money, but also of time and energy were factors that posed barriers. As reported in other studies from Sweden (140-142), and Canada (143) the well-being of the children was prioritized, at the expense of own well-being and consumption. Most of the participants had no or little help from the father of the child(ren), either in terms of financial or social support which made them particularly vulnerable.

The persistence of financial hardships also has implications; living in persistent financial difficulties entails greater health risks than do occasional spells of poverty (70). Ahnquist et al. (144) studied financial hardships among Swedish women and men. The study shows that women reporting financial hardships at several time points had an increased risk of poor health, in a dose-response effect. Further, their analysis also suggests it may not only be the low income as such but rather the perceived difficulties in making ends meet that are harmful for health. The results of Study I reported above are based on cross-sectional data that do not reveal the persistence of financial difficulties. However, it has also been suggested that it has become harder to rise from poverty (145). Several of the participants in Study IV expressed that their financial problems had lasted for a long time.

Besides being a welfare society, Sweden is also a consumerist society. For the participants in Study IV, who were not able to afford even the basic necessities, the prevailing consumption levels in Swedish society were impossible to achieve. In line with Sen's (73) reasoning, not being able to take part in society led to feelings of loneliness and social isolation, and a sense of social exclusion. Feelings of social

exclusion are closely connected to poverty and these may also reinforce each other (139). Being *other* in the consumerist discourse further put strain on parenting. Worries related to children were expressed, both in terms of not being able to do things that other children can; visit relatives or go on vacation, or take part in sports, and in terms of what effect the *otherness* this produces will have for the children (see also (146)). The strain on parenting imposed by consumerism for parents with financial difficulties has also been reported from other studies (75, 141). Our findings show how the normative power of the discourses of consumerism and healthism produced feelings of insufficiency and stress.

The discursive practice of othering experienced by the participants in different aspects of their lives generated feelings of exclusion. A discourse of otherness ran through all themes and is central to how participants in many ways related to being a lone mother in society. A Canadian study came to a similar conclusion analysing poor women's heart related experiences (147).

6.2.2 How may the changes in social and policy context in Sweden 1979-2001 influence health of lone mothers?

Why did financial difficulties increase more among lone mothers than among couple mothers in Sweden? Several factors contributed to this. Applying Diderichsens model, we see that changes during this time period concerned all entry points.

The weakened position of lone mothers on the labour market following the recession in the early 1990s continued into the upswing of the economy. Thus fewer had income from gainful employment (entry point A). Since present employment grants eligibility for many transfers, those who are not able to enter the labour market will not qualify for income-based social insurance transfers.

Looking at the policy changes for decreasing exposure to financial difficulties and the effect of exposure (entry point B and C), we see for example that the eligibility for social assistance was restricted during the 1990s and benefit levels declined (84). Additionally, the levels of transfers in the income maintenance system and benefits such as housing allowance (means-tested), child allowance and study allowance were lowered during the crisis. Most were adjusted upwards again following the crisis but not to the initial levels. Healthcare plays a role in decreasing the effects of exposure to health risks. Private expenses in many cases increased during the 1990s. Patient fees were increased as well as patient costs for pharmaceutical drugs and dental care. Research has shown that lone mothers avoid visiting healthcare despite a perceived medical need and that financial difficulties impacts on this (26).

The increases in expenses such as housing costs, out of pocket charges for many services and childcare affected all families but lone parents in particular. That these factors would impact on the health of lone mothers, and particularly those in a particularly vulnerable financial position is to be expected. Previous studies have also found that in times of economic recessions and welfare state retrenchment, lone

mothers are among those hit hardest concerning living conditions and health (88). The increase in poor health among sub-groups of lone mothers (the youngest, unskilled manual workers and the non-employed) may in part be due to an increase in financial problems among these groups in Sweden.

As described above, a number of social and policy changes relating to all entry points, took place during the period studied. Combined, they contribute to the increased prevalence of lone mothers reporting economic strain and lack of cash margin in 1997-2001. The findings of Study I and II support earlier studies which show that lone mothers were severely affected by the economic crisis in the 1990s and the subsequent welfare state retrenchments (84, 104).

The findings of Study II show that lone mothers had higher risks of poor SRH, hospitalization and mortality than couple mothers during all time periods (1983-2001). Despite higher and increased exposure to health risks such as lack of cash margin and economic strain, and increased prevalence of poor SRH for lone mothers 1983-2001, we did not find evidence of increased differentials in poor SRH, hospitalization or mortality over time between lone and couple mothers. As in Study I, the highest increase in prevalence of poor health was found among the lone non-/ unemployed mothers. Seeing the deterioration in social position and the increase in health risks such as lack of cash margin and economic strain, why did we not find increased differentials in poor health between lone and couple mothers in Study II?

It may be that the Swedish welfare state, although reduced, still provides a decent standard of living for all and thus *buffers* against increased differentials in health. This lack of increased differentials is in line with a previous Swedish study (148). The excess risk of hospitalization and mortality remained after adjustment for employment and social assistance. However, the social markers non-employment and receipt of social assistance contributed more to the excess risk for lone mothers in the latest cohort (1996-2001), compared to earlier cohorts.

Latency could be another explanation as to why we do not see increased differentials. The effects of the recession and the following policy changes affected all mothers. However, lone mothers lagged behind when the upswing of the economy came in the late 1990s. Thus, it may be that the effects of the increase in social differentials (employment and financial difficulties, which were most marked in 1996-2001) did not yet show in terms of health. As the income inequality has since continued to rise (106), it will be important to monitor what happens to health of lone mothers. Further, the lack of increased differentials in our study may be due to methodological considerations (see possible bias, page 40 f). Considering these alternative explanations it cannot be ruled out that the design and the methods used contributed to the lack of findings.

6.3 EMPLOYMENT STATUS AND HEALTH

Recent studies show that labour market attachment has become increasingly important for alleviating poverty risks (27). Both Study I and II point out the non-employed as a particularly vulnerable group of lone mothers in Sweden. The poor health of the non-employed is in accordance with a previous study from the mid- 1990s (149), and our study further shows that this development has since continued, and in fact increased (see Figure IV). Further, non-employment had increased among lone mothers. Still, the association between non-employment and health may be different in different types of welfare states.

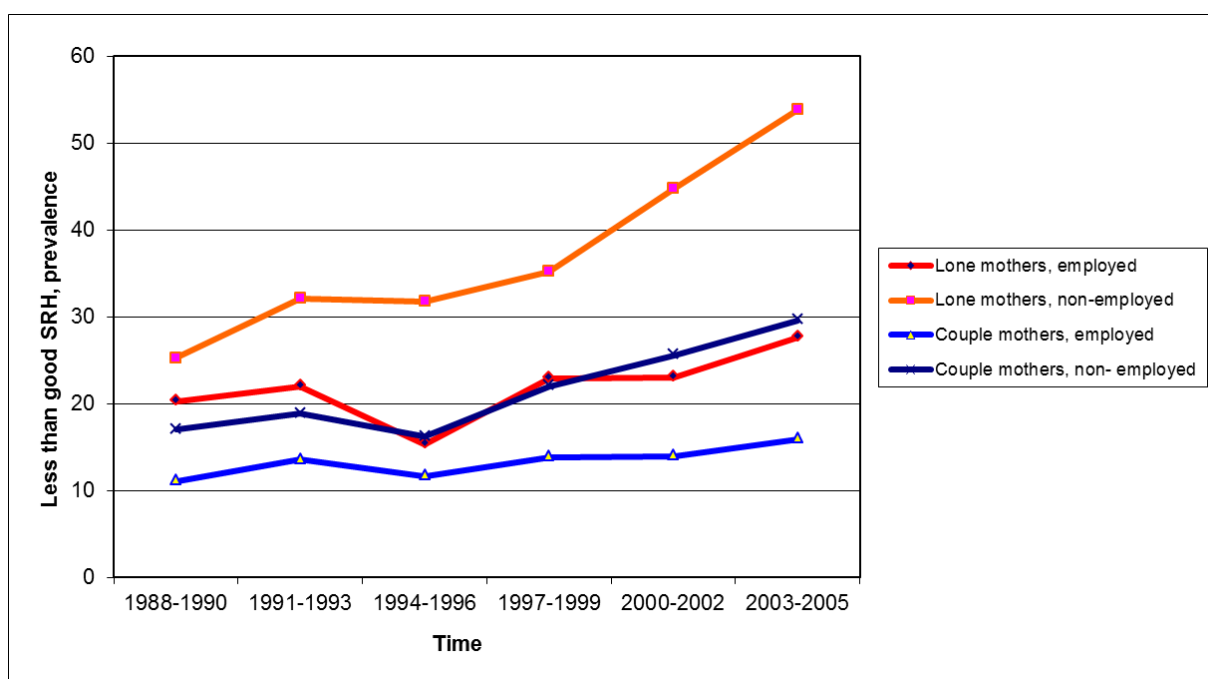


Figure IV. Prevalence (per cent) of poor self-rated health (SRH) among lone and couple mothers by employment status, Sweden (ULF data) 1988-2005

Study III found that non-employment was associated with poor SRH in Britain, Italy and Sweden. This is in line with previous studies; see for example Bambra and Eikemo (150). The indications of synergy effects found between lone motherhood and non-employment on health may be due to health selection and health impact (or social causation). Both of these may play out differently in our three family policy models.

Firstly, *health selection* into non-employment is a known phenomenon (99) which may be especially substantial for lone mothers. The Swedish lone mothers without employment report poorer health than the couple non-employed mothers, in spite of encompassing and comparatively generous welfare arrangements. This could imply a stronger health selection out of employment than in Britain for example where employment rates are lower.

Secondly, the *effect on health* of non-employment may be more severe for lone mothers. Complementary analyses of data from the Luxembourg Income Study (LIS) showed that poverty rates are high among children living in lone mother families. In Britain poverty rates were 32 per cent among children of lone mothers, in Italy 30 per cent and in Sweden 10.4 per cent.

Studies that have analysed countries according to family policy regimes have found that the dual-earner family policy model does better in protecting well-being of children in terms of poverty and in terms of mortality (18, 151). According to several indicators, the dual-earner model (based on two-earners) is associated with a better health. Should our results be seen as contradictory? It is possible that lone mothers have a special position in the dual-earner model as discussed previously. Underemployment of lone mothers in Sweden has been suggested in earlier studies (52) and the increasing difference in employment rates among lone and couple mothers seems to support this. The polarisation of health between lone mothers with higher and lower income in Sweden may be influenced by other factors than family policy. The living conditions of Swedish lone mothers who do not have gainful employment and are not qualified to benefit from the generosity of social insurance are impacted by the low benefit levels of the last resort safety net. This polarisation of those who are inside the system (who have gainful employment and/or qualify for the social insurance) vs those who do not does not only apply to lone mothers but to all groups who have difficulties entering the labour market, such as the young and immigrants.

There is stigma attached to social assistance reciprocity in the Nordic countries including Sweden, and this has been put down to the harshness of the means-test which focuses financial capital as well as income (126). For those who rely (fully or partly) on social assistance, there has further been deterioration in the last resort safety net. Kuivalainen and Nelson (126) studied the Nordic welfare model in a European perspective, focussing on means-tested social assistance and minimum income benefit from the 1990s to 2010. The changes in benefit levels during the 1990s, and the faster rise of wages and living standards in the general population in Sweden, has made beneficiaries relatively worse off. Thus, adequacy rates decreased after the mid-1990s. From being ranked in the top in benefit levels in 1990, above for example Britain, Germany and the Netherlands, by 2009 Sweden provides less generous benefits compared to these countries. Sweden does no longer provide benefits above 60 per cent of median income, which is described by the EU as at-risk-of poverty threshold, and poverty rates among recipients of means-tested benefits has risen.

In Study IV, the participants expressed difficulties both in finding and keeping employment. Thus, the difficulties of getting out of financial strain are aggravated. The expressed difficulties in getting a job may indicate that the discourse of the nuclear family where lone mothers are positioned as *other* impacts on the ability of lone mothers to land a job and may thus produce further exclusion, both in financial and social terms. Further, working and being a lone mother with responsibility for children may conflict with the notion of being a good parent, as found also by Gardberg Morner (140). In the focus group discussions, this was related to difficulties in keeping a job. Participants who were on sick leave expressed a feeling of exclusion from society. It

can be hypothesized that the psycho-social health effects of joblessness, resulting from feelings of stigma and alienation from society (152) and difficulties to participate in community life (79) may be particularly strong in societies such as Sweden where the working imperative is strong.

Discourses of welfare society as well as the nuclear family set normative standards that were hard for the participants to reach, for example being a self-sufficient breadwinner and living in a traditional two-parent family. We found that the lone mothers in our study felt invisible in the welfare state, and this supports what Hobson & Takahashi (153) describe: When support for lone parents is connected to the policy framework for working parents where the dual income family is the norm, this could lead to invisibility of the financial and social difficulties that arise due to lone parenthood. Perhaps the invisibility of these issues also contributes to the disappointment felt by some participants for the lack of support they perceived from society.

So, can anything be said as to the implications of the poor health of the non-employed lone mothers? In all countries, improving living conditions among this group is important. Further, considering the context in each country we see that in Britain, which has the largest proportion of lone mothers, nearly half of the lone mothers are non-employed. Thus, the poorer health of this group is a substantial public health problem. And, it is likely that efforts to improve childcare by making it available and affordable would have an impact on the employment rate. In Italy, if the anticipated development continues lone motherhood will increase also among less privileged social groups. Considering the lack of a national policy for last resort assistance in Italy, and that women with working class background are at highest risk of non-employment, in all family policy models (154), it is likely we will see an increase in differentials in health between lone and couple mothers. In Sweden, the poor health of the non-employed mothers indicates that effort should be made also to improve opportunities for rehabilitation back to work when such is needed and facilitate combining family and work. As indicated in the focus group discussions, greater flexibility in both working hours and childcare are requested.

6.4 POSSIBLE SOURCES OF BIAS

There are a number of possible sources of bias in the quantitative studies of this thesis. Below, the possibility of selection bias, misclassification of exposure and outcome and confounding is discussed.

6.4.1 Selection bias

Selection bias in an epidemiological study is a systematic error that arises from the procedures to select subjects, and factors that influence participation. The bias results if the association between the exposure and the outcome is different for participants and non-participants (155).

One potential bias in Study I-III is if there is systematic non-response. The response rate in the population surveys used in this thesis is comparatively high, which generally makes non-response less of a problem. However, it may be that the non-response is higher among lone mothers and in particular the more vulnerable groups of lone mothers. As the response rate is generally lower among those with lower socio-economic position, and people in poor health status further are less likely to participate in surveys (156), it is possible that the excess risks of poor health among lone mothers with financial strain (Study I) and non-employed and social assistance recipients (Study II) and among non-employed lone mothers (Study III) are underestimated in our studies.

In Study II where we also analyse severe morbidity and mortality with a longitudinal approach, the registers have full-population coverage and a low drop-out rate and selection bias is thus a lesser problem.

6.4.2 Misclassification of exposure

Systematic differences in the way exposure and outcome data are obtained may lead to information bias, such as misclassification of exposure.

The measurement of lone motherhood based on registers in Study II is impaired by imperfect data sources in the latest cohort, which was obtained from the Total Population Register. For this data, the number of lone parents will be overestimated, since couples that live together without being married or do not have common children (but have children from previous relationships) will falsely be coded as lone parent households. This leads to an underestimation of the relative risks of lone mothers regarding severe morbidity and mortality for the latest cohort, 1996-2001 (see Study II p 2486 for a description on sensitivity analyses performed).

In the cross-sectional data from population based surveys (Studies I-III), the information on exposure to financial strain and joblessness is self-reported and any misclassification of these is likely to be non-differential between lone and couple mothers. In these studies, being a lone mother is also self-defined. Thus, in this group we find both lone mothers that are alone in all aspects of raising their child(ren), and mothers who get a lot of support from the fathers of the child(ren), materially and socially. Although not a matter of misclassification as such, their living conditions may differ and it is likely that the conditions for those that receive less support are more severe. Joint custody is today a common option after a divorce or separation in Sweden, and children of separated parents increasingly split their time equally between their parents (13). We were not able to adjust for the amount of sole responsibility in any of the studies, but it is likely the results would have been more pronounced if we had been able to do so.

Our studies did not differentiate between long term lone motherhood and shorter. A previous study showed that mothers who were lone during a longer time period had more elevated risks than mothers who were lone during a shorter time period (4).

In Study II, the information on exposure in the different cohorts (based on register data) was collected at the baseline of each cohort. Therefore, we do not capture if there has been a change in employment status or receipt of social assistance for the individuals in the cohorts, which there may very well have been during the five year follow up. Measuring exposure at only one point in time is thus quite crude. Naturally, this is a drawback, which is however likely to be non-differential between the lone and partnered mothers and may lead to a dilution of the relative risks. Also, using receipt of social assistance as a marker for poverty may be problematic since individuals may refrain from seeking social assistance in spite of both a need and an entitlement due to the stigma attached (126). Some participants in our focus group discussions voiced that they did all they could to avoid seeking social assistance, because if they did, they would have to sell their accommodation. It is however hard to say whether this would be differential between lone and couple mothers.

6.4.3 Misclassification of outcome

Self-rated health which is used as the outcome measure in Studies I-III, is a valid measure for health which in studies have been indicated not to be misclassified according to social group (115). If there were to be any bias from self-reporting, this is not likely to differ between lone and couple mothers.

In Study II, the outcome measures are based on record of deaths and hospital discharges which means they are not subject to bias by self-reporting. They can further be expected to cover the most serious outcomes. However, if lone mothers would be likely to more often be admitted to hospital, for example since there is no other adult in the household to provide care, this might lead to over estimation of the risk associated with lone motherhood. However, considering the reduction in hospital care in Sweden during the 1990s, it is likely that admittance is based primarily on medical reasons (157).

6.4.4 Confounding

Confounding arises when the exposed and unexposed differ in factors that predict the risk of poor health, and may cause under- or overestimation of the relative risk (155). In order for a confounder to explain a considerable overrisk, it would have to be strongly correlated both to the exposure and the outcome, and not be a mediating factor.

Although we have attempted to adjust for many potential confounders, there may still be unmeasured confounders as well as imperfect measurement of the variables, causing residual confounding. Non-employment and social assistance reciprocity for the cohorts in Study II were for instance measured at baseline, as was the exposure of being a lone mother.

We controlled for age as a potential confounder in all studies. Generally, younger age groups report better health compared to the older age groups. At the same time, younger people often have a lower income, and are non-employed to a higher extent.

Behavioural factors may differ between lone and couple mothers. Smoking was included in the analyses in Study II and Study III. In Study I, we tested including smoking in the regression models, but this did not alter the results and was not included in the final model. Daily smoking may also be considered a mediator in the association between lone motherhood and poor health, this may however differ between settings. In Study III, smoking was introduced separately to allow the reader to judge the possibility of mediation.

6.4.5 Other sources of bias

Most of the data in this thesis are cross sectional (Study I-III), based on population based national surveys with high response rates (see data section). As is well known, cross-sectional data does not allow for determination of causal associations, since both the outcome and the exposure is measured at the same time. It is plausible that poor health leads to financial difficulties and also to non-employment. However, as discussed in the background section, longitudinal studies have suggested that the main direction of causation runs from income to health, and from employment to health. Benzeval and Judge (70) show that controlling for initial health status causes an attenuation of the association between income and health, but does not eliminate it.

As discussed in the potential explanations for the lack of increased differentials between lone and couple mothers in Study II, the follow up time of five years may be too short. The optimal time lag and thus the appropriate follow up time is however difficult to establish (70). In our analysis, we included only outcomes that may potentially be related to contextual factors, with a presumed shorter time lag.

6.5 METHODOLOGICAL CONSIDERATIONS (STUDY IV)

In Study IV, we used focus groups to collect data. Recruiting would probably have been facilitated had we chosen to do individual interviews, since the main obstacle was gathering those who were able to participate at the same occasion. However, the choice to use focus groups rather than individual interviews was made since the research question was deemed exploratory and we wanted to study how a group of lone mothers thinks about a phenomenon and focus socially shared, culturally based perceptions, experiences, opinions and attitudes (131).

The participants were mainly recruited through existing networks. Even though they are deprived, most of them may be 'better off' than persons who have not had the power or the energy to join a network.

Even though they were recruited through existing networks, most participants did not know each other in advance. This can be both an advantage and a disadvantage in the focus group discussions. An advantage may be that the participants do not know what the others think about different issues, and thus explain matters that could be taken for granted in a group who know each other previously (131). Our experience from the focus groups is that the conversations most of the time flowed quite freely and that the participants were relaxed and welcomed the others to state their opinion and express their thoughts on matters brought up, saying things like: “I don’t know about you, but at least I feel...” The other participants then picked up and elaborated on the issue from their own point of view, sometimes agreeing, sometimes contradicting. In one of the focus group discussions the conversation flowed less freely, possibly because the participants formed into two groups. A disadvantage of groups where the participants do not know each other in advance may be that individuals who are shy become withdrawn while others take over (131). In moderating the focus group discussions, care was taken to create an open environment and encouraging everyone to speak their mind.

The findings of a qualitative study are not regarded as facts generalizable to the population (158). Study IV was based on a small sample and can only represent the participants and their experiences. However, if there is no obvious reason against the conclusions drawn, there may be value that goes beyond the studied group. Our findings are corroborated by studies from other researchers (as shown in the manuscript and earlier in this discussion) which would imply that there are some experiences that are shared among particular groups of lone mothers.

Our previous studies and other knowledge in the field have directed our attention to how we may understand being a lone mother with financial difficulties living in Swedish society of today and how this may be related to health.

6.6 STRENGTHS

A strength of this thesis lies in the combination of methods and data sets used in the different studies. For the Swedish setting, we used data spanning over 20 years of important social and economic changes, providing a broad picture of the changing living conditions and patterns of health inequalities between lone and couple mothers. We also included analyses of social differentials within the group of lone mothers, by employment status and income groups. In the analyses of Swedish data, we used both self-reported health measures as well as outcomes of severe morbidity and mortality, from survey data and registers with full population coverage respectively. The qualitative study provided further insights into everyday life as a lone mother with financial strain in Sweden, and how this is related to health. The comparative study highlighted health of the non-employed lone mothers in Britain, Italy and Sweden, and discussed how this may be related to family policy in each country. Together, these studies paint a broad picture of living conditions and health of lone mothers in different contexts.

7 CONCLUSIONS

This thesis contributes to the knowledge on how financial strain and employment status are related to health of lone mothers. It stresses the importance of policy contexts and social differentials among lone mothers.

Financial strain contributes to the excess risk of poor health among lone mothers in Sweden. Living with financial strain may influence health in a multitude of ways. According to the focus group discussions, financial strain influences all aspects of life and causes health problems. A lot of effort has to be put into simply getting by. A conceived lack of time further augments stress among working lone mothers.

A polarisation of health was noticed among lone mothers, with improved health among the highest income quintiles, and an increase of poor health among the lowest income quintiles. Among sub-groups of lone mothers in Sweden, the increase in poor health may in part be due to an increase in financial problems which may be traced back to changes in social and policy context. However, in the beginning of the 2000s, there was no evidence of increased differentials in poor health between lone and couple mothers.

The studies from Sweden over time and from the different welfare states indicate that the policy context has implications for the possibilities to take on gainful employment as well as for the living conditions for those who remain outside the labour market. Lone mothers without employment are a group of concern since they are especially exposed to financial hardships and report poorer health in Britain, Italy and Sweden. In the case of Sweden, non-employed lone mothers also have experienced a large increase in poor health over time. It is important to monitor whether the differences found among lone mothers persist and whether differences increase between lone and couple mothers. Today, with growing inequalities in income, and recurrent financial crises, this is even more important.

Improving the economic conditions for lone mothers is important for their health, and for their social and financial participation in society. Beyond this, it also has implications for the lives of their children. Improving the possibilities to combine employment and lone parenthood and ensuring sufficient economic conditions for lone mothers without employment are within the scope of social policy.

8 IMPLICATIONS FOR FUTURE STUDIES

- In Sweden, children of separated parents increasingly split time between their parents equally. Therefore, comparisons on the health and living conditions of lone fathers and lone mothers could further illuminate the gendered nature of the pathways to poor health.
- A life course perspective should be applied in order to better understand the pathways between lone motherhood and health. Both longitudinal quantitative studies and qualitative studies are warranted.
- Future studies should address the heterogeneity of the group lone mothers in Sweden, and the poor health among the non-employed and those in lower income groups.
- Foreign born lone mothers may be a particularly vulnerable group in terms of financial situation and labour market attachment and also in terms of social networks. Both quantitative and qualitative studies are warranted.
- Lone mothers in our qualitative study report little or no help from the father of the child(ren), either financially or socially. Future studies should focus the role of fathers' responsibilities in caring for the children.
- The importance of social network for the health of lone mothers who are alone in raising their children (with little or no support from the father), and how these may be strengthened should be further investigated.

9 ACKNOWLEDGEMENTS

I have benefited from the help and support from many persons during the work on this thesis. Many thanks to all of you, whether acknowledged here or not:

First of all, thank you to all of you mothers who took the time to be interviewed in the surveys and especially in the focus group interviews. Without you there would be no thesis.

My main supervisor, *Bo Burström*, for encouraging me to pursue a PhD. Thank you for your excellent scientific guidance and patience in explaining, sometimes the same thing, over and over again. Your passion for research and the good it can be used for is inspiring and brings out the best in people. I am also very grateful for your endless reading of new drafts, even on weekends and holidays when my time optimism put me in a tight spot.

Johan Fritzell, my co-supervisor, for excellent scientific advice and pointing me in the right direction when I did not see it. Thank you also for keeping my spirits up and being so supportive. I am grateful to have had the opportunity to take part in the doctoral student activities at CHESS, I have enjoyed both the scientific discussions and the friendly atmosphere. It has been great fun and also very educative to attend the workshops, both in Sweden and abroad. You were also supportive when I married another Fritzell and thus got the same last name as you. It has caused some funny situations when people try to figure out how we may be related. I will do my best to keep the name in good reputation.

Gunilla Ringbäck-Weitoft, it was a true pleasure to be working with you. Your methodological expertise and kindness made the difficult seem easy.

Giuseppe Costa and *Francesca Vannoni*, my Italian co-authors, for providing expert knowledge on the Italian context. A special thank you to Francesca for splendidly performing the analyses on the Italian data and being so helpful in finding references.

Margaret Whitehead, and *Stephen Clayton*, my British co-authors, for providing expert knowledge on the British state of affairs. Special thanks to Margaret for asking those clever questions that really pushes knowledge forward, it has been inspiring to work with you.

Ann-Sofie Bakshi, thank you for teaching me how to do qualitative research. When I thought I was done, you pushed me to go further and climb higher. It has been stimulating and I have learnt a lot from working with you.

Colleagues, both past and present, at Social Medicine and the research group *Equity and health policy analysis* for providing a great work environment and making going to work a pleasure. Many thanks for all support. Special thanks to *Janne Agerholm* for

good company and always helping out and to *Lotta Nylén* for kindly commenting drafts and helping out with those so important final adjustments on this thesis.

To all past and present fellow PhD- students, especially *Anneli Marttila* and *Mona Backhans*, for good times and support in this both enjoyable and straining journey..

A warm thank you also goes to my friends; *Lisa*, for always being there and providing my life with a bit of glamour. To *Johanna* for your friendship and support, and getting my spirits up as we have raced towards the end of our PhD studies together. To *Kattis* for well needed distraction, good laughs and introducing me to procrastination- thus strangely making me even more efficient. To *Andrea* for kind support.

My mother and father, *Aira* and *Kjell*, for always believing I could do whatever I want to do and for sparking my scientific interest in the first place. And of course for alleviating the load and taking great care of their grandchildren when work piled up. To *Anna*, for constant encouragement and good laughs. And of course the baby-sitting, it will be my turn now. Farmor *Anna-Greta* for inspiration and for always believing in me.

Jakob, for your love and support, and taking such good care of our children while I've been busy trying to wrap up the thesis. To our wonderful children *Elsa* and *Emil*, I do look forward to spending more time with you now that I have "finished writing the book".

Finally, I gratefully acknowledge financial support from Stockholm County Council and the Swedish Council for Working Life and Social Research (FAS) which has partly enabled this thesis work.

Sara Fritzell, October 2011

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11 INTERVIEW GUIDE STUDY IV

Please tell us your name, how many children you have and how old they are

What is health for you?

What is good health?

What is poor health?

What do you think impacts on health?

Can one affect one's own health? How?

Can you describe a situation when you feel you were able to influence your health?

Can you describe a situation when you feel you were not able to influence your health?

Do you do anything that is good for your health? What is that?

Is there anything you would like to do to promote your health?

What would it take for you to be able to do that?

Do you do anything that is not good for your health?

Does one have responsibility for one's health?

Have you experienced that the money is not enough to make ends meet?

Does your personal economy affect your health? In what way?

Can you give any example on situations when it is troublesome to have lack of money, in relation to your health?

Did you have to refrain from something that would have been good for your health, because it did not work financially?

- How did that feel?

- Did you do anything else instead?

- Do you think, or do you even know that it had any consequences?

What do you think should be done to improve health among lone mothers?

Who should do it? Who is responsible?

Is there something else you would like to bring up?

Questions that were added during the course of the study

Does your health affect your personal economy?

Do you feel you can influence your situation?

Do you feel part of society (as lone mothers) or do you feel outside?

Do you get any load alleviation? From whom?

What about the fathers?

Are you a member of any association? Why?