

A deeper understanding of service users' needs, self-management support and user involvement in Healthy Life Centres

A qualitative study on lifestyle change in persons with overweight or obesity

by

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the requirements for the degree of
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Elin Salemonsens

Summary

Background: Worldwide, including Norway, overweight and obesity present some of the greatest health challenges. Since the 1980s, the incidence has tripled, leading to a subsequent high prevalence of chronic lifestyle diseases or non-communicable diseases (NCDs), such as cardiovascular disorder, diabetes type 2, some types of cancer, muscle and skeleton disorders and mental health challenges. This has led to an increased focus on lifestyle interventions that emphasise self-management of the condition, as well as the need for users to be readily involved and participating. Therefore, self-management support (SMS) and user involvement have become two important concepts in health services in today's society. The Norwegian Directorate of Health recommended the establishment of Healthy Life Centres (HLCs) in all municipalities to help facilitate and empower people to obtain a greater mastery of the health challenges they face. HLCs assist persons at risk of NCDs or those in need of support for health behaviour changes or weight management. Behaviour change refers to efforts to change people's personal habits to prevent disease. The purpose of these self-management interventions is mainly to promote and improve people's physical activity and diets. There is no clear way of addressing overweight and obesity in primary care; knowledge regarding lifestyle interventions in HLCs and what works is still sparse and needs further investigation.

Aim: The overall aim of this PhD-study was to contribute to a deeper understanding of service users' needs, beneficial SMS and user involvement in lifestyle interventions in Norwegian primary care HLCs. The study explored adult service users' and healthcare professionals' (HPs) experiences and perceptions of these phenomena. Three sub-studies were conducted. The aim of the first study was to explore HLC service users' experiences of living with overweight or obesity and their perceptions of seeking help to change dietary and activity habits. The second study aimed to explore service users' experiences of beneficial SMS and user involvement. The aim of the third study was to explore how HPs provide SMS and what user involvement implies for HPs in HLCs.

Methods: This study involved a qualitative, explorative and interpretative design grounded in hermeneutic methodology and tradition. Semi-structured in-depth interviews with service users participating in lifestyle interventions in HLCs were conducted and analysed using qualitative content analysis. A total of 13 service users (five men and eight women), aged 30-69, from five different HLCs, participated (Papers I and II). Focus groups were used to collect data from healthcare professionals working in HLCs and this was analysed using thematic analysis. 10 healthcare professionals from eight different HLCs participated in two focus group interviews (Paper III).

Results: The analysis of the first study (Paper I) resulted in one main theme: *Searching for dignity*, which could be split into two themes: 1) *Needing to justify avoidance of personal responsibility* and 2) *A desire to change*. In the second study (Paper II), one main theme was identified: *Regaining self-esteem and dignity through active involvement and long-term self-worth support in partnership with others*. This main theme comprised four themes: 1) *Self-efficacy through active involvement and better perceived health*, 2) *Valued through HPs acknowledgement, equality and individualised support*, 3) *Increased motivation and self-belief through fellowship and peer support* and 4) *Maintenance of lifestyle change through accessibility and long-term support*. The analysis in the third study (Paper III) resulted in one overall theme: *A partnership based on ethical awareness, a non-judgemental attitude, dialogue and shared responsibility*, comprising four interrelated themes: 1) *Supporting self-efficacy, self-worth and dignity through an attitude of respect, acknowledgement and generosity*, 2) *Promoting self-belief and self-perceived health*, 3) *Collaborating and sharing responsibility* and 4) *Being flexible, adjusting and sharing time*.

Conclusion and implications for practice: A synthesis of the findings in the three papers can provide a deeper understanding of service users' needs, beneficial SMS and user involvement by means of three new themes. The first theme, *The dual face of responsibility in health – the burden and the value* is based on the service user's search for dignity and the emotional alternation between shame, guilt and pride. This duality can be understood as a burden of shame and weight stigma that influence the user's capability to assume personal responsibility. The value can be understood as a perception of dignity, pride, active involvement and assuming responsibility. HPs need to address self-

conscious feelings like guilt, shame and internalised stigma, as well as responsibility related to dilemmas about right and wrong lifestyles. The second theme, *The art of acting ethically* seems to be an integrated attitude of beneficence in HPs' practice and is demonstrated by their capability to engage in a person-centred approach and to see the service users' existential needs in a vulnerable situation. HPs' self-worth support is based on ethical awareness, a non-judgemental attitude, dialogue and shared responsibility. This may help the service users to increase their self-efficacy and self-management and regain their integrity, self-respect and dignity. The last theme, *The challenges and possibilities in sharing responsibility*, is built on the findings related to HPs treating service users as equal partners in a collaborative partnership based on shared responsibility. The challenges are related to the need for long-term follow-up, emotional and social support, personal responsibility in an obesity-promoting environment and structural and political responsibility. An important therapeutic mechanism in beneficial SMS and user involvement may lie in the possibility of sharing responsibility, which may reduce the burden of personal responsibility, shame, guilt and weight stigma. This may also increase self-efficacy and help service users live a healthier life and experience a better quality of life and wellbeing. Accordingly, there is a possibility of sharing responsibility at a relational level and to highlight collective approaches from a socio-ecological perspective.

Oppsummering

Bakgrunn: En stor del av helseutfordringene som Norge og resten av verden står overfor i dag kan knyttes til en økning i overvekt og fedme. Siden 1980-tallet har forekomsten av overvekt og fedme tredoblet seg, og har ført til økning i livsstilssykdommer, såkalte kroniske ikke-smittsomme sykdommer (NCD), som hjerte- og karlidelser, diabetes type 2, noen typer kreft, muskelskjelettplager og psykiske helseutfordringer. Dette har ledet til et økt fokus mot livsstilsintervensjoner og pasient- og bruker opplæringsprogram som i stor grad vektlegger egenmestring av tilstanden eller sykdommen, samt nødvendigheten av at brukerne selv involveres og medvirker. Brukerinvolvering og støtte til egenmestring er derfor blitt to viktige begrep i helsetjenestene i dagens samfunn. Helsedirektoratet anbefaler etablering av Frisklivssentraler i alle kommuner for å hjelpe og styrke mennesker til en større mestring av helseutfordringene de står overfor. Hensikten med Frisklivssentralen er å hjelpe personer som er i risiko for kroniske lidelser, eller som har behov for støtte ved endring av helseatferd, levevaner eller veksthåndtering. Endring av helseatferd handler om å endre personlige vaner for å forhindre sykdom. Hensikten med intervensjonene er hovedsakelig å fremme og forbedre menneskers fysiske aktivitet og kosthold. Det finnes ingen klar måte å håndtere overvekt og fedme i primærhelsetjenesten, og kunnskap om livsstilsintervensjonene i Frisklivssentralen og hva som virker er fortsatt begrenset og trenger å undersøkes nærmere.

Hensikt: Det overordnede målet i denne avhandlingen var å bidra til en dypere forståelse for Frisklivssentralens tjenestebrukere sitt behov for hjelp, nyttig hjelp til egenmestring og brukerinvolvering i livsstilsintervensjoner. Studien undersøkte voksne tjenestebrukere og helsepersonell sine erfaringer og oppfatninger om disse fenomenene. Tre delstudier ble gjennomført. I den første delstudien var målet å utforske tjenestebrukernes opplevelser av å leve med overvekt eller fedme og å søke hjelp til endring av kostvaner og fysisk aktivitet i Frisklivssentraler (artikkel I). Målet i den andre delstudien var å utforske nyttig støtte til egenmestring og brukerinvolvering for livsstilsendring fra tjenestebrukernes perspektiv (artikkel II). I den tredje delstudien var målet å utforske hvordan helsepersonells utøver nyttig støtte til egenmestring og hva

brukerinvolvering innebærer for helsepersonell som jobber i frisklivssentraler (artikkel III).

Metode: Et kvalitativt, utforskende og fortolkende design med utgangspunkt i hermeneutisk metodologi og tradisjon ble utformet. Semistrukturerte dybdeintervju med tjenestebrukere som har deltatt i livsstilsintervensjonene i Frisklivssentralen ble gjennomført og analysert ved bruk av kvalitativ innholdsanalyse. Totalt 13 tjenestebrukere, fem menn og åtte kvinner i alderen 30-69 år deltok fra fem forskjellige frisklivssentraler (artikkel I og II). Fokusgrupper ble brukt for å samle inn data fra helsepersonell som arbeider i frisklivssentraler, og analysert ved bruk av tematisk innholdsanalyse. 10 helsepersonell fra åtte ulike frisklivssentraler deltok i to fokusgruppeintervju (artikkel III).

Resultat: Analysen av den første studien (artikkel I) resulterte i ett hovedtema: *Søken etter verdighet*, basert på to temaer: 1) *Å ha behov for å rettferdiggjøre unngåelse av personlig ansvar*, og 2) *Et ønske om endring*. I den andre studien (artikkel II) ble ett hovedtema identifisert: *Å gjenopprette selv-respekt og verdighet gjennom aktiv involvering og langvarig støtte fra andre*. Dette hovedtemaet omfattet fire temaer: 1) *Mestringstro gjennom aktivt involvering og bedre opplevd helse*, 2) *Verdsatt gjennom helsepersonells anerkjennelse, likeverdighet og individuelt tilpasset støtte*, 3) *Økt motivasjon og selvtillit gjennom fellesskap med andre deltakere*, og 4) *Opprettholdelse av livsstilsendring gjennom tilgjengelighet og langvarig støtte*. Analysen i den tredje studien (artikkel III) resulterte i ett overordnet tema: *Et partnerskap basert på helsepersonells etisk bevissthet, en ikke-dømmende holdning, dialog og delt ansvar*, som omfatter fire komplementære temaer: 1) *Støtte til mestringstro, selvrespekt og verdighet gjennom en holdning basert på respekt, anerkjennelse og raushet* 2) *Å fremme selvtillit og selvopplevd helse* 3) *Samarbeid og deling av ansvar* og 4) *Å være fleksibel, tilpasse og dele tid*.

Konklusjon og implikasjoner for praksis: En syntese av funnen i de tre artiklene kan gi en dypere forståelse av tjenestebrukernes behov, nyttig støtte til egenmestring og brukerinvolvering ved hjelp av tre nye tema: Det første temaet, *Dobbeltheten i personlig ansvar for helse- byrden og verdien*, er basert på at tjenestebrukene søker etter verdighet og veksler mellom en følelse av skam, skyld og stolthet. Tosidigheten kan forstås som en byrde av skam og

vektstigma som påvirker evnen til å ta personlig ansvar. Verdien kan forstås som en oppfatning av verdighet, stolthet, aktiv involvering og å ta ansvar. Helsepersonell må adressere selvbevisste følelse som skyld, skam, internalisert stigma og verdighet, samt ansvar relatert til riktig og feil livsstil. Det andre temaet, *Kunsten å handle på en etisk måte* ser ut til å være en integrert holdning til velgjørenhet i helsepersonell sin praksis og vises ved deres evne til å ha en personsentrert tilnærming og se tjenestebrukernes eksistensielle behov i en sårbar situasjon. Helsepersonell sin støtte til selvbilde og egenmestring er basert på etisk bevissthet, en ikke-dømmende holdning, dialog og delt ansvar. Dette kan hjelpe tjenestebrukere til å øke sin mestringstro, bedre egenmestring og til å gjenopprette integritet, selvrespekt og verdighet. Det siste temaet *Utfordringene og mulighetene for å dele ansvar* er bygget på funnene hvor helsepersonell behandler tjenestebrukere som likeverdige partnere i et samarbeid som er basert på delt ansvar. Utfordringene er knyttet til behovet for langsiktig oppfølging og emosjonell og sosial støtte, personlig ansvar i et fedmefremmende miljø og strukturelt og politisk ansvar. En viktig terapeutisk mekanisme i nyttig støtte til egenmestring og brukerinvolvering kan ligge i mulighetene for å dele ansvar, noe som kan redusere belastningen av personlig ansvar, skam, skyld og vektstigma, samt øke mestringstroen og hjelpe tjenestebrukere til å leve et sunnere liv og oppleve bedre livskvalitet og velvære. Følgelig er det muligheter i å dele ansvar på et relasjonelt nivå, men også kollektive tilnærminger i et sosioøkologisk perspektiv må vektlegges.

List of Papers

Paper I

Salemonsens E, Hansen BS, Førland G, Holm AL. Healthy Life Centre participants' perceptions of living with overweight or obesity and seeking help for a perceived "wrong" lifestyle – a qualitative interview study. *BMC Obesity* 2018; 5:42.

Paper II

Salemonsens E, Førland G, Hansen BS, Holm AL. Service users' experience of beneficial self-management support and user involvement in Healthy Life Centres – a qualitative interview study. Submitted to *International Journal of Qualitative Studies on Health and Well-being (QHW)* 12th December 2019.

Paper III

Salemonsens E, Førland G, Hansen BS, Holm AL. Understanding beneficial self-management support and the meaning of user involvement in lifestyle interventions – a qualitative study from the perspective of healthcare professionals. Accepted January 2020, *BMC Health Services Research*.

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Abbreviations

BMI	Body mass index
COPD	Chronic obstructive pulmonary diseases
CVD	Cardio vascular diseases
FG	Focus group
GP	General Practitioners
HLCs	Healthy Life Centres
HPs	Healthcare professionals
HRQoL	Health related quality of life
MI	Motivational interview
NCDs	Non-communicable diseases
RCT	Randomised control trials
SMS	Self-management support
SMI	Self-management support interventions
T2DM	Type-2 diabetes
WHO	World Health Organization

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1 Introduction

1.1 General introduction

After 11 years as a public health nurse in primary healthcare, I became a research fellow at Western Norway University of Applied Science (HVL) in 2015. In 2016, I became a PhD student at the University of Stavanger and began this doctoral thesis. Throughout my work as a public health nurse, I experienced complex challenges related to overweight and obesity, weight management and change of dietary and activity habits in children, adolescents and their families. This developed my interest in understanding these challenges better. Overweight and obesity in children, adolescents and adults are dramatically rising worldwide [1], including in Norway [2]. These complex conditions are considered major risk factors for lifestyle diseases, so-called chronic conditions and non-communicable diseases (NCDs) [3]. In primary care, children and adolescents afflicted by overweight or obesity are followed up by the public health nursing service at local health clinics or in-school health services. Adults have traditionally been helped and supervised by their general practitioners (GPs).

According to Henderson [4], there is no clear way to address obesity in primary care. In Norway, primary care has increased its preventive services, a position supported by the Norwegian Government and the World Health Organization (WHO). Various laws and regulatory documents have created the opportunity for, and helped to facilitate, people to be empowered to a greater mastery of the health challenges they face. The Public Health Reports, *Good health – a shared responsibility* [5] and *Mastering and opportunities* [6], emphasise health as a resource in everyday life and place an increased, positive focus on lifestyle changes. The Public Health Act [7] is an important tool for achieving the intentions of the Coordination Reform [8], to ensure sustainable welfare for the future through increased focus on prevention

and public health. An important way to control NCDs is to focus on reducing risk factors associated with these diseases and to monitor progress in NCD risks for guiding policies and priorities. Both the WHO Action Plan [9] and the Norwegian NCD strategy [10] highlight the need for preventing NCDs. These documents show the direction of public health work in the primary healthcare services in municipalities. The epidemiological shift from acute to chronic illness and the increased commitment to improving public health have led to the initiation of patient and user education programmes or self-management support interventions (SMI). Obesity is particularly associated with increased use of healthcare services and healthcare providers are likely to benefit from implementing interventions to combat obesity [11]. In Norway, there has been an increasing focus on interventions to promote and control NCDs [5, 7, 10, 12-14]. This has resulted in recommendations to all Norwegian municipalities on establishing Healthy Life Centres (HLCs). These provide help and support for coping with health-related challenges and provide support for changing living habits, with a main focus on dietary and physical activity changes [13].

HLCs and learning and mastering courses are relatively new concepts for health promotion in primary healthcare in Norway. New interventions often need more research to highlight their potential effects. This thesis addresses self-management support (SMS), user involvement in lifestyle interventions for adults, delivered by HLCs in Norwegian primary healthcare. The study specifically explores the services users' need for support, beneficial SMS and user involvement for persons afflicted by overweight or obesity seeking help to change their lifestyle. In this study, lifestyle change is understood as changing dietary and activity habits, and does not concern smoking cessation.

In the following paragraphs, there will be a presentation of overweight and obesity and its prevalence and health risks, to describe the problem area and phenomenon under exploration. A description of lifestyle interventions offered in HLCs and their historical and organisational

development will be presented to contextualise this study. This will be followed by an overview of previous research from HLCs and this study's aim and research questions.

The public health perspective, including health promotion and illness prevention, as well as the holistic and humanistic approaches and perspectives, will be presented in the first chapter concerning the theoretical and conceptual framework. The concepts of user involvement, the service users' needs and SMS will be presented in the second chapter concerning the theoretical and conceptual framework, to avoid repetition. Traditional treatment and the effect of interventions in overweight and obesity treatment will be presented to give an overview of some of the knowledge in the field. This will not include surgical and medical or pharmacological treatment.

1.2 Background and problem area

1.2.1 Overweight and obesity – its prevalence and health risks

Worldwide, more than 1.9 billion adults are overweight and 650 million of these have obesity [1]. In Norway, 21% of women and 25% of men in their forties have obesity and over 50% are overweight, including obesity [2]. The worldwide prevalence of obesity nearly tripled between 1975 and 2016. The fundamental cause of overweight and obesity is described as an energy imbalance between calories consumed and calories expended [1]. Complex interactions between biological, behavioural, social and environmental factors are involved in the regulation of energy balance and fat stores [15]. Obesity is not simply a problem of will power or self-control, but a complex condition involving energy metabolism and appetite regulation [16]. Obesity is also associated with unemployment, social disadvantages and reduced socio-economic productivity, thus increasingly creating an economic burden [17].

Overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health. Overweight is a body mass index (BMI) greater than or equal to 25, and obesity is a BMI greater than or equal to 30 [1, 18]. Overweight and obesity are major risk factors for a number of chronic diseases or NCDs, including type-2 diabetes (T2DM), cardiovascular disease (CVD), chronic obstructive pulmonary disease (COPD), some types of cancer and musculoskeletal disorders, with serious social and psychological dimensions [2, 3, 19]. These negative health consequences are well documented [20]. NCDs are one of the major health challenges of the 21st century; they shorten life-expectancy [20] and represent 71% of all deaths globally [3]. The high proportion of health services devoted to chronic diseases reflects the shift from acute to chronic illness as the major cause of health problems. Overweight and obesity have become significant national and international health concerns that place an extensive burden on healthcare services worldwide [1, 3, 21-23].

The risk of NCDs has primarily been driven by tobacco use, physical inactivity, unhealthy diets and harmful use of alcohol [3]. In Norway, like other parts of the industrialised world, there has been a change in the global food system, with increased access to high-energy food and a more sedentary lifestyle due to urbanisation, social changes, technological development and advancement [2, 17, 24]. Population-inactivity presents a major public health problem [20]. Physical inactivity is responsible for 9% of premature mortality rates; an increase in physical activity could substantially improve health [20] and increase quality of life [25].

Whether the responsibility to change these trends lies with the individual, healthcare professionals (HPs) or policy makers, is debated [17, 26-28]. Lifestyle change is difficult; however, it is not just individual behaviour that leads to these epidemics. Behaviours take place in a biological and social environment. Efforts to change these must take account of the social context and the political and economic forces that act directly on

people's health, regardless of any individual choices they may make [29]. One effective actions might be a policy change that facilitates individual choices for foods that have reduced fat, sugar and salt contents [17].

There is a dominant view that overweight and obesity is a matter of personal responsibility [30, 31], as well as alternative conceptions that consider obesity as determined by biological factors within an individual or as resulting from features of the broader environment [31]. Personal responsibility for eating healthy food and engaging in physical activity is traditionally seen as the important determinant for weight status [27, 28, 31]. When individuals experience failure in the ability to lose and maintain weight, personal responsibility becomes associated with a failure in personal willpower [27]. Studies of how service users and patients present themselves or position themselves in lifestyle change programmes show that people are trying to construct an ethical self by acting in line with the norms of lifestyle change, acting in compliance with the aims of the course and positioning themselves as morally accepting individuals [32]. Patients in clinical dialogue about lifestyle issues represent themselves with an orientation toward responsibility and honour of achievements. In problematic situations, when they were not doing well, some patients revealed shame for not acting as responsible persons [33].

The challenges related to overweight and obesity imply self-blame and shame [28, 31, 34]. Some individuals with obesity are blamed for their weight and many experience weight stigma (anti-fat stigma, weight-bias) [31, 34, 35]. Victim blaming, moral condemnation and the logic of motivating people to comply with official health guidelines by moralising behaviours and promoting the internalisation of weight-based stigma is highly questionable [36, 37]. Numerous studies have documented harmful weight-based stereotypes – that overweight and obese individuals are lazy, lack self-discipline, have poor willpower are unsuccessful, unintelligent and are noncompliant with weight-loss

treatment [28, 34, 38, 39]. These stereotypes give way to stigma, prejudice and discrimination against obese persons in multiple domains of living, including healthcare facilities, the workplace, educational institutions, the mass media and even in close interpersonal relationships [38]. Weight stigma affects coping behaviours and is a fundamental cause of population health inequalities [40]. Weight stigma adds both psychological and physiological stress to people who are considered obese [34, 38, 41-43], which threatens their health, generates health disparities and interferes with effective intervention efforts [38, 40, 42, 44, 45]. Weight-bias internalisation affects wellbeing and weight-related quality of life [37, 46] and is positively associated with body-image concerns, poor self-esteem, depressive symptoms and stress [47]. Stress and having a stigmatised body can affect physical health by affecting cortisol secretion and stimulating the production of biochemical hormones and peptides, such as leptin and ghrelin. Stress is connected to obesity and interferes with cognitive processes, such as executive function and self-regulation; it affects overeating and high-calorie food consumption, decreases physical activity and shortens sleep [43]. A vicious cycle of stress to obesity to stigma to stress is described [41, 43].

Many healthcare providers hold strong negative attitudes and stereotypes about people with obesity [48]. These attitudes may influence the care they provide and may cause stress and avoidance of care, mistrust of HPs and poor adherence to interventions. Stigma can reduce the quality of care for patients with obesity, despite the best intentions of HPs to provide high quality care [48, 49].

1.2.2 The Norwegian Healthy Life Centres (HLCs)

The first HLC was established in Modum municipality in 1996. In 2004, the Directorate of Health cooperated with several county municipalities in developing different models for referral and follow-up interventions for support in changing living habits (physical activity, diet, smoking-cessation). In 2008, 42 municipalities had established HLCs. In 2012 the

Norwegian government introduced a new Public Health Act and emphasised municipalities and local governments taking responsibility for public health, with the intention to promote health and prevent development of NCDs. All municipalities were recommended to establish a HLC. The first guidelines for HLCs were published by the Directorate of Health in 2013 and updated in 2016 [13]. By 2018, 263 municipalities had established a HLC [50].

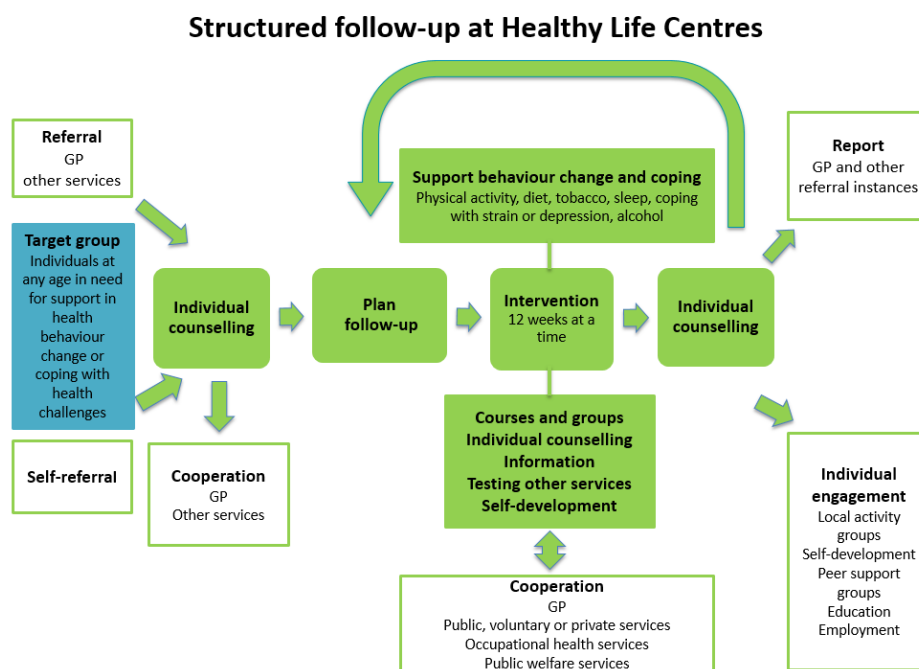


Figure 1. Structured follow-up at HLCs [13, 51]

HLCs are part of public healthcare services in municipalities and the interventions have a person-centred approach aimed at strengthening the individuals' control of their health. A HLC is an interdisciplinary primary healthcare service that offers effective, knowledge-based measures for people with a high risk of disease, who need support in health behaviour change and in coping with health problems and chronic

diseases [13]. The healthcare service offered at HLCs is part of the overall learning and mastering services in municipalities. The purpose of HLCs as a healthcare service is to support lifestyle change and promote self-management in people's everyday lives, where they live. The interventions offered have a salutogenic foundation [52], using motivational interviewing (MI) as one of the conversational approaches [13]. These behavioural interventions aim to help patients and service users better manage their own conditions (self-care) and healthcare needs [21, 53-57]. The purpose is to promote and improve people's physical activity, diet and behaviour – efforts to change people's personal habits to prevent disease [13]. Participation is not based on BMI measurements. This low threshold service is easily accessible through direct contact or by referrals from e.g. GPs.

Healthcare professionals working in HLCs include physiotherapists, public health nurses, psychiatric nurses, nutritionists and other providers (e.g. bachelor's in public health) who provide support through a structured follow-up programme of intervention. The initial health conversation, as part of the intervention, is based on the participant's perception and understanding of the challenges they are seeking help for. Individual goals are set in collaboration between the service user and the HP. Thereafter, HLCs offer group-based healthy diet courses and/or physical activity sessions (see figure1, p.7). The healthy diet course consists of four to five two-hour sessions with theory and practical tasks (including cooking and reading nutritional content declarations). Information on healthy diets and nutrition are provided. These courses focus on increasing the users' awareness of their habits, their own resources and making small steps. Relapse prevention and strategies are also discussed. Physical activity in the form of group-based indoor and outdoor activities is offered two to three times a week. If desired, individual health conversations and counselling is also available [13]. The organisation of the HLC differs between the various municipalities and small communities often have inter-municipal cooperation that

enables service users to attend courses across municipal boundaries. An intervention lasts for three months, with the possibility to extend it on three occasions. However, this is practiced differently in the various municipalities. The purpose of HLCs is to enable service users to maintain changes and continue with activities after the follow-up at the HLC has been completed, as well as encourage and guide participants to take part in feasible local activities in the municipality [13].

Many HLCs also offer counselling, support and education on issues related to mental health, sleep and alcohol. Within a municipality, the HLC functions as a resource, knowledge and contact centre for behaviour change, health promotion and disease prevention. Cooperation with other municipal healthcare services, hospitals, non-governmental organisations, private and public organisations and local authorities is of vital importance to provide continuous and integrated healthcare and help people establish independent and lasting health-enhancing habits [13].

HLCs are still new at delivering educational self-management interventions in Norwegian primary care and the scientific evidence and understanding of how HLCs work is sparse. In the following sections, an overview of research from HLCs will be presented.

1.2.3 Previous research in Norwegian HLC lifestyle interventions

On commencing this PhD project in 2015, very few studies on HLCs in Norway had been conducted and published. No studies describing beneficial SMS were found and research on user involvement in lifestyle interventions or weight management programmes in HLCs was also lacking.

A prospective study from 2013 found that participation in a group-based prescribed exercise programme for three months may improve physical

fitness and health-related quality of life (HRQoL) significantly, in both the short and long term [58]. A cross-sectional study in HLCs from 2014 found that exercising with others was the most frequent reason for increased self-activity. Participants with increased activity levels reported better physical health and a greater degree of interest and follow-up by the referent, often a GP [59]. An explorative study on HLC participants' backgrounds, experiences, reflections and descriptions of previous life experiences in relation to lifestyle changes was published in 2015 [60].

Eventually, more papers were published. In 2016, a paper on stakeholders' expectations concluded that HLCs are still a concept in development; they are trying to find their position in the public healthcare system [61]. In 2017, a study of HLC participant characteristics was published [62] and in 2018, one RCT of physical activity interventions in HLC primary care found that less active persons at baseline benefitted more from HLC intervention. However, they questioned whether HLCs and the emphasis on behaviour change on an individual level is a way of targeting general health and risk reduction at a population level [63].

Sagsveen et al. [64, 65] published two papers in 2018 exploring user involvement in HLC consultation, from both service user and HP perspectives. These studies do not describe or specify whether this involvement applied especially to people with overweight or obesity. However, one might assume that this is one of the reasons for seeking help at a HLC. Inclusion criteria were persons participating in individual health consultations, physical activity groups and/or diet courses. These explorative studies showed that respect, trust and continuity were essential. The service users felt their involvement led to trusting relationships, feeling ownership and responsibility through personal goal setting, trusting the professionals' decisions and experiencing involvement in group activities [65]. HPs described user involvement at an individual level as involving the users through MI, building a trusting

relationship, assessing and adjusting to the user's needs and life situation and strengthening the user's ownership and participation in the process of lifestyle change [64]. These results are similar to characteristics of SMS [53] and confirm the close relationship between user involvement and SMS.

User involvement is said to lead to better services and improved outcome [66, 67], and is enshrined in the Patients' and Service Users' Rights Act [68]. Service users' experiential knowledge is valued because it seems to provide information that will improve delivery of care. However, research on user involvement on effectiveness and quality is limited and there is a need for debate on the purpose of user involvement and what it means for whom [69]. Exploring beneficial SMS and user involvement in HLCs can be necessary for quality, improved effectiveness and guided approaches to lifestyle change support for overweight and obesity. There seem to be a need to develop effective interventions to support lifestyle change. There is also a need for more knowledge and understanding of what service users need, how they are involved in the process of lifestyle change (the significance of user involvement) and what and how the service users are best supported and helped (beneficial SMS). There is a lack of knowledge and understanding from the view of HPs in Norwegian HLCs, including how they create joint relationship with service users, how they promote user involvement and SMS for persons afflicted by overweight or obesity and what user involvement implies for HPs in HLCs. This knowledge-gap constitutes the rationale for this study.

1.3 Aims and research questions

The overall aim of this PhD-study was to contribute to a deeper understanding of service users' needs, beneficial SMS and user involvement in lifestyle interventions in Norwegian primary care HLCs, by exploring and interpreting service users' and HPs' experiences and

perceptions of these phenomena. The purpose of this study was to contribute to new empirical knowledge and understanding relating to the significance of user involvement and SMS for lasting lifestyle changes and how HPs can facilitate and provide a high quality healthcare service. Hopefully, this research will have implications for practice in primary care and the future development of HLCs, as well as interventions aimed at addressing the serious social, psychological and physiological health challenges that overweight and obesity may cause. Three sub-studies were performed, related to the overall aim and specific aims:

- To explore service users' experiences of living with overweight or obesity and their perceptions of seeking help to change dietary and activity habits (Paper I).
- To explore beneficial self-management support and user involvement for persons afflicted by overweight or obesity attending lifestyle interventions in Norwegian Healthy Life Centres (Paper II).
- To explore how healthcare professionals provide self-management support and what user involvement implies for healthcare professionals in Healthy Life Centres (Paper III).

The following research questions guided the study:

1. How do service users participating in lifestyle interventions in HLCs experience living with overweight or obesity?
2. What are the service users' perceptions of seeking help to change dietary and activity habits?
3. What do beneficial SMS and user involvement imply for persons afflicted by overweight or obesity attending lifestyle interventions in HLCs?
4. How do HPs in HLCs provide SMS in lifestyle interventions for persons afflicted by overweight or obesity?
5. What does user involvement imply for the HPs in HLCs?

2 Theoretical and conceptual framework

The general theoretical perspectives and approaches in this study are based on public health, including health promotion and disease prevention. This is in accordance with my theoretical and practical background as a public health nurse. A holistic approach to human existence, including a person-centred approach and beneficence, and a socio-ecological view of health is adopted. This is in line with WHO's definition and understanding of public health and health promotion [70, 71]. The theoretical perspective of public health will be presented first, including humanistic and socio-ecological approach to health, as well as health promotion and disease prevention and empowerment. This will be followed by a presentation of the main concepts of this thesis. This includes the concepts of user involvement, service users' needs and SMS (including self-management and self-efficacy). Each will be followed by relevant national and international research on user involvement in lifestyle interventions, service users' needs and SMS interventions in lifestyle change. Both theoretical and conceptual frameworks are used in this thesis to interpret and understand the findings.

2.1 Public health perspective

This study uses a public health perspective and a socio-ecological approach to health. Public health is defined as 'the science and art of promoting health, preventing disease, and prolonging life through the organized efforts of society' [71] (p.1). Public health is a social and political concept aimed at improving health, prolonging life and improving the quality of life among whole populations, through health promotion, disease prevention and other forms of health interventions. Public health should ensure that society creates conditions that allow the attainment of health by all its members [71]. From the beginning of the 19th century until the 1950s, there was a shift in the disease panorama from infectious diseases towards chronic diseases (or NCDs). In the mid-

1980s, WHO presented strategies towards combatting NCDs and the Ottawa Charter [70] was the first international political document for promoting health and the foundation for the new public health (NPH) movement. This movement emphasises psychosocial, humanistic and holistic views and values rather than a biomedical approach [72]. The fundamental policy of NPH involves self-care by the individual and community, as well as national and local governments being responsible for the health and wellbeing of society, voluntary organisational and private sectors, and the need to address health inequalities [72, 73].

2.1.1 Humanistic and socio-ecological approach to health

The NPH movement emphasises social and ecological holistic approaches to health and health promotion [72]. Humanistic psychology emphasises understanding the individual on their own terms, where experiences, perceptions, values and choices have a central position. Humanistic psychology is inspired by existentialism and phenomenology. Rogers and Maslow, together with Satir, are often seen as the founders of this movement. Phenomenological psychology emphasises a person's descriptions of themselves and the environment, and the psychological perspective has adopted a holistic approach to human existence [74]. Person-centred approach has long associations with nursing, with a focus on treating people as individuals, respecting their rights as human beings, building mutual trust and understanding and developing a therapeutic relationship [75]. Healthcare should be coherent and based on each individual's comprehensive needs. The focus should be on people's abilities, and empowering and engaging the person as an active partner in their care and treatment [76, 77]. HPs should always work from an ethical perspective and approach patients with dignity, compassion and respect [78]. Rogers [79] described person-centred therapy as necessary for establishing a psychologically therapeutic environment, in which a person feels free from threat, both

physically and psychologically. The therapist must be able to listen with understanding and empathy, be accepting and genuine and having a positive approach. This is an important and often crucial factor in motivating change and development [79]. The benefits of person-centred care are evident, presenting a major opportunity for improving health outcomes [80].

Providing healthcare and support implies being reflexive and acting ethically [78]. Beneficence is a concept in moral and ethical philosophy and theory and a relevant aspect in this study. Morality require us to treat people autonomously, avoid harming them and contribute to their wellbeing. The principle of beneficence refers to the moral obligation to act for the benefit of others. There is an implicit assumption in all medical and health care professions and healthcare institutions to act in beneficence [78]. As HPs, entering a profession and taking on professional roles, we have an obligatory duty and responsibility to act in beneficence. We are morally prohibited by rules of nonmaleficence from causing harm to anyone at all times. Preventive medicine and public health research embrace values of public beneficence [78].

A socio-ecological approach and understanding of health and health promotion can be found in Bronfenbrenner's ecological model and theory of development [81]. This theory explains how the individual is part of a larger ecological system and how interactions between systems from the micro-level (the individual) to the macro-level (culture and society) influence each other in all aspects of life [81].

2.1.2 Health promotion and disease prevention

The first international conference on health promotion in 1986 presented the primary source for health promotion and a charter for action to achieve health for all [82]. The Ottawa Charter defines health promotion as 'the process of enabling people to increase control over and to improve their health... Health is created and lived by people within the setting of

their everyday life; where they learn, work, play and love' [70]. Health involves caring for oneself and others and is seen as a resource for everyday life. Health is a positive concept emphasising social and personal resources and goes beyond healthy lifestyles to include wellbeing. An individual or group must be able to make decisions and have control over their life circumstances, to change or manage the environment and identify and realise their desires to satisfy their needs [70]. The Ottawa Charter has five action areas in health promotion. These include building healthy public policy, creating supportive environments, strengthening community actions, developing personal skills and reorienting health services. Four of these action areas are structural matters. The fifth action area – developing personal skills – has an individual orientation [70, 82]. According to Nutbeam, developing personal skills is important for people's opportunity to participate and to be empowered [71, 83]. In 2009, WHO decided to replace the term 'personal skills' with 'health literacy' and 'health behaviour' [84]. Empowerment, user participation and involvement, equity, justice and a holistic approach – including social, cultural, political, ecological and environmental factors – are guiding principles in health promotion [71].

'Disease prevention covers measures not only to prevent the occurrence of disease, such as risk factor reduction, but also to arrest its progress and reduce its consequences once established' [71] (p.4). Rose [85] made a distinction between high-risk strategy and population strategy in disease prevention and described the 'prevention paradox' as a contradictory situation. That is, the number of people at high risk of a disease is small and only a minority of cases come from the high-risk population. The majority of cases of a disease come from the population at a low or moderate risk of that disease, where the number of people is high [85]. Fundamental differences between health promotion and disease prevention is described, where the latter has a basis in biomedical and natural science [86].

2.1.3 Empowerment

The concepts of empowerment and user participation seem to have the same origin and are intertwined, as people are empowered through user participation [87]. In health promotion, empowerment is defined as ‘a process through which people gain greater control over decisions and actions affecting their lives’ [71] (p.6). Empowerment is a fundamental value and goal in health promotion [71] and is recognised by WHO and health agencies as a core concept in health promotion, integral to the achievement of social equity [88]. ‘Empowerment may be a social, cultural, psychological or political process through which individuals and social groups are able to express their needs, present their concerns, devise strategies for involvement in decision-making, and achieve political, social and cultural action to meet those needs’ [71] (p.6).

One of the most famous and quoted authors in terms of empowerment is Freire. He discusses a mutual and open-minded dialogue about being a subject in one’s own life and not a powerless object [89]. Freire sees empowerment both as a process and as a goal. It is a process when the purpose of a teaching intervention, such as information on healthy and good food, increases the person’s ability to think critically and act autonomously. Healthy choices are facilitated through knowledge. Empowerment is a goal when an experience of increased self-efficacy occurs as a result of the process [89]. Participants find that they are able to choose healthier food types or they experience skills in implementing and conducting increased activity. According to Freire, raising awareness and focusing on the individual’s own responsibility for changing their life situation is necessary. Individuals who do not feel personal responsibility for their problems will not endeavour to find solutions to them [89]. Relating this to lifestyle interventions that offer help and support to change health behaviour, healthcare providers need to contribute so that participants themselves become conscious and aware of what must be done before change can occur.

Askheim [90] describes that the term empowerment accommodates both an individual and a structural dimension. The individual addresses processes that aim to increase their control over their own life, their self-esteem and their skills and knowledge, so that they can identify barriers themselves. The structural dimension includes barriers, power relationships and social structures that maintain inequality, injustice and the lack of ability to take control of their own lives. The key to empowerment is to see the connection between the life situation that the individual is in and the problem the person has on one hand and the social or structural relationships on the other. If there is a one-sided emphasis on individual aspects, it may mean that the collective, system-oriented and political aspects of the empowerment process are not taken into account [90]. Malterud [91] suggests that the prevailing meaning of educational empowerment should be questioned. Within an empowerment framework, the responsibility of the healthcare provider is to recognise the suffering of patients, identify their strengths and prevent further marginalisation due to power inequality. Social structures and healthcare policy may neglect the power inequalities by determining the distribution of risk factors and the moral pressure of well-intended lifestyle advice, as opposed to the original notions of empowerment [91].

2.2 *User involvement*

Empowerment and user involvement are both central elements in health promotion [71]. User involvement is connected with the disciplines and discourses of political philosophy, power and democracy and of citizenship rights and responsibilities [67, 92]. In the 1980s, a new focus for participation reflected the desire to move away from service- or provider-led public provision to more user-centred and user-led services. User involvement became the unifying idea underpinning this development. By increasing user involvement, it would be possible to move beyond traditional top-down paternalistic approaches associated with the welfare state, to a more user-centred provision [92]. It is

universally acknowledged that patients and users should be involved in their own care [66]. A fundamental problem affecting user involvement and participation is that the terms tend to be poorly defined and carelessly used; treated in isolation as technical rather than ideological matter [92]. However, participation and user involvement are far from value-free. The ideology underpinning them is unclear and disputed and there is a need to understand user involvement in the political, ideological, cultural and historical contexts [92].

SMI and patient education is undergoing a paradigm shift, whereby patient perspectives are increasingly incorporated into learning programmes. Dialogue and collaboration between service providers and users is essential for effective user involvement and access to users' experiences is now considered a prerequisite for the development of quality health services [66, 93]. Patient involvement in managing chronic conditions (e.g. lifestyle change) is, for some people, synonymous with Lorig's work on structured self-management training programmes focusing on building patients' self-efficacy [57, 66]. According to Greenhalg, this gave rise to the concept of the 'expert patient' [66].

Askheim [90] states that empowerment thinking challenges the professional's traditional authority and power position. Professionals who want to work from an empowerment perspective must be willing to redefine their traditional expert role to become a resource that works on the user's premises [90]. Patient involvement in European healthcare is characterised in three terms: voice, choice and co-production [94, 95]. In user involvement, the term 'co-production', which may be the ideal and which, according to Askheim [96], has been widely spread in Western world health policy, means the patient must co-produce the health service individually and/or collectively with healthcare professionals. Askheim poses some questions for this new concept of user involvement that has been incorporated into Norwegian government documents, including whether it obfuscates or revitalises the empowerment

perspective, or whether it is a concealment of power relations [96, 97]. In this study, user involvement is characterised in terms of the co-production of healthcare services [94, 95] and understood as a clinical partnership between service users and HPs [66].

Greenhalg [66] argues that we need a wider approach in patient involvement, to go beyond the expert patient model and construct an ecological model for supported self-management of chronic conditions and to embrace a more holistic model that considers a person's family, social and political contexts [66]. An ecological model or understanding like this is also seen in Bronfenbrenner's theory [81] and in collectivistic perspectives, which highlight the understanding that individuals are part of social groups and social systems [98]. An ecological approach in diabetes self-management helped identify key resources and supports for self-management, including individualised assessment, collaborative goal setting, skills enhancement, follow-up and support, access to resources and continuity of quality clinical care [99].

Collaborative care models, such as patient-centred care, shared decision making, recovery and patient participation incorporate user involvement and patients' perspective on their treatment and care [100]. There is limited empirical research about the effectiveness of these models. There are also issues related to the person's capacity for user involvement, the role patients wish to play in decision-making and the lack of competence and awareness among providers (mental care) [100]. User involvement and participation are incorporated in the municipal healthcare services and the rights of patients and service-users to participate in issues regarding their health are provided for in the Patients' and Service Users Rights Act [68].

Patients have a legal and moral right to autonomy and self-determination [66, 68, 78]. In HLCs, user participation on both the individual healthcare and system levels should be safeguarded and implies active

participation from the service users [13]. Patient and public involvement in hospital (somatic and mental) healthcare is founded on mutual respect achieved through dialogue and shared decision-making [101, 102]. However, service users and HPs assign different values to its aspects [69, 102]. What user involvement means for service users in SMI, like the lifestyle interventions in HLCs, is not clear. Therefore, this study aims to explore what user involvement imply for service users and HPs in HLCs.

2.2.1 Research on user involvement in lifestyle interventions

Research on user involvement in lifestyle interventions or weight management programmes is sparse in primary care, and no studies have been found in relation to the significance of user involvement in adults afflicted by overweight or obesity. One study on user involvement in planning, implementing and evaluating a weight management programme for antenatal women with obesity was found [103]. A Study of user involvement in patient education in hospitals show that the collaboration between the users and HPs takes place in an asymmetric relationship, and the relationship was based on knowledge sharing (participant engagement and dialogue) and information exchange (absence of dialogue) [93]. In a study of user involvement in community mental health care, both service users and HPs reported that service user involvement had a positive impact [104]. Studies of user involvement in HLCs are described in the introduction chapter [64, 65].

2.3 The service users' needs

Service users' needs are the characteristics and needs of the person seeking help to change their lifestyle or to lose weight. A person-centred practice and approach may be useful for understanding the concept of both the service user's need for support and as a part of user involvement and SMS, as well as a humanistic view of health and care. To be able to

help and provide support, it is important to know the person behind the service user.

2.3.1 Research on service users' needs

A lack of literature in the field of service users' needs in overweight and obesity makes it necessary to include studies from general lifestyle counselling and other chronic conditions. These studies show that lifestyle counselling from GPs in a primary care practice underscores the necessity of a patient-centred approach. This includes exploration of patients' lifeworld, advice adjusted to concrete life situations, a good relationship with time to listen and personalised care with friendliness and openness where emotions were acknowledged. The patients emphasised the need for time and repeated consultations [105]. In a study of what coronary heart disease patients perceive as a good patient educator, individualisation to patients' needs and contexts is important, as well as the capacity to build a trustworthy relationship. Building trust was dependent on the patients perceiving the educator to be knowledgeable, to treat people with respect and equality and be good at connecting with the individual patient [106].

Reasons and motives for lifestyle changes and weight loss may reflect psychological differences that have an impact on successful weight loss. This may also provide insight into potential barriers for achieving weight loss success [107, 108]. Until the start of this project in 2015, only one previous study on HLCs has explored the background (characteristics), experiences and reflections of participants seeking help to achieve lifestyle change in HLCs. This study shows that the service users felt stuck in their old habits and had substantial emotional baggage. The service users found it difficult to initiate and manage lifestyle change without help and supervision and wished for emotional support [60].

Factors such as health concerns, past dieting success, self-reported weight status or BMI, self-esteem and body image may be important in

tailoring dietary and psychological elements to the individual [107, 108]. Some studies describe health risks, comorbidities and high BMI as a reason for seeking help [60, 61, 107]. In a previous study of reasons for wanting to lose weight, appearance (35%), health (50%) and mood (15%) emerged as categories [107]. High BMI was correlated with more total perceived barriers, such as the feeling of being too heavy or the fear of being treated unfairly or badly [108]. Experiences of or expectations of poor treatment may cause stress and avoidance of care, mistrust towards doctors and poor adherence among patients with obesity [48]. People need help to achieve lifestyle changes because they find it difficult to manage on their own [29, 109, 110]. Findings provide initial evidence that overlooking psychosocial factors, such as weight stigma, may hinder weight-loss maintenance and hamper help-seeking [48, 49, 111]. The implications for addressing emotional distress and stigma in overweight and obesity-focused clinical interventions are highlighted [60, 112].

Newly available studies describe characteristics and needs in persons seeking help to achieve lifestyle change. In 2018, Samdal et al. [62] published a paper on the characteristics and needs of HLC participants. The most frequent reasons given for attendance at HLCs were being overweight, increasing physical activity, improving diet and having musculoskeletal health challenges [62]. Evans et al. [113] claim that there is a lack of research into overweight and obese participants' characteristics and the weight management practices of these patients. 62% of the participants in their study were actively trying to lose weight. Only 20% had sought GP support for weight loss, with most efforts to lose weight being self-guided. Those who sought support from their GP were likely to use it and found it motivating. Participants had attempted weight loss on multiple previous occasions and, overall, felt less confident and successful at maintaining weight loss than losing weight. They lacked the understanding of effective strategies to do so. Participants with higher BMIs and more health conditions (those at

greatest clinical risk) reported low confidence and multiple barriers, but were highly motivated to lose weight and keep it off [113].

2.4 Self-management support (SMS)

SMS aims to equip service users and patients with the necessary information and skills to manage their own healthcare (independency), maintain optimal health and minimise the consequences of their conditions [13, 53, 54, 57]. The purpose of HLCs is to establish independent and lasting health-enhancing habits and to guide the participants into suitable local programmes that they can continue with on their own after the participation period has ended [13]. Self-management is defined as ‘an individual’s ability to detect and manage symptoms, treatment, physical and psychosocial consequences, as well as the lifestyle changes inherent in living with a chronic condition’ [114] (p.178).

Health literacy is a useful concept for understanding health and people’s personal resources. The 7th Global Conference on Health Promotion [84] highlight health literacy as critical to empowerment. Improving people’s access to health information and their capacity to use it effectively to promote and maintain good health is important [84]. This is supported by Kickbusch et al. [115] who incorporate empowerment into people’s daily lives and define health literacy as ‘the ability to make sound health decisions in the context of everyday life – at home, in the community, at the workplace, in the health care system and in the political arena. It is a critical empowerment strategy to increase people’s control over their health, their ability to seek out information and their ability to take responsibility’ [115] (p.8).

SMS approaches emphasise a clinical partnership and collaborative care, promote service users identifying and achieving realistic goals and teach problem-solving skills [53, 116]. SMI is also described as patient education intervention, health education intervention, behaviour change

intervention, a lifestyle education programme, an educational programme, self-management education [57] or therapeutic patient intervention (TPE) [54]. Other terms used are interventions to promote self-efficacy and coping [117]. According to Bodenheimer [53], self-management education focuses on self-management skill development, while SMS and SMI describe clinicians reinforcing self-management skills to encourage daily decisions that improve health-related behaviours and clinical outcomes [53]. The potential benefit of SMS includes quality care tailored to the service users' preferences and situation [118]. Self-management may be one means of bridging the gap between patients' needs and the capacity of healthcare services to meet those needs [114]. SMI in primary healthcare has been one option used to enhance positive outcomes in chronic disease management, including overweight and obesity [119]. However, there is sparse knowledge related to SMS in overweight and obesity interventions [113, 120, 121]. There is also a lack of clear reflection on what, how and why patient education works [122].

Raising self-efficacy, an individual's belief in their ability to manage different tasks [123], is one key goal of SMS and educational interventions for persons living with chronic conditions [53, 57]. The desired outcome of SMS is behavioural change [116]. Self-efficacy is related to what a person believes they can manage; expectations of efficacy determine the initiation and sustainability of behaviour [123]. Self-efficacy focused interventions are highlighted in diabetes interventions [124] and are one of the best predictors or psychological mechanisms for successful outcomes in obesity-related lifestyle change interventions [125].

2.4.1 Research on self-management support interventions (SMI) in overweight and obesity treatment

Lifestyle interventions are named differently and patient education interventions and SMI can be used interchangeably, as described above. Very few studies describe the full intervention content and process. This makes it difficult to search for self-management support interventions in overweight and obesity in primary care. Analysis of integrative reviews, systematic reviews and meta-analysis in the literature of patient education on obesity suggests that patient education could improve health outcomes, including self-management skills and quality of life [120, 121]. However, the literature in the field of obesity is poor with regards to patient education programmes or self-management interventions, especially in adults [113, 120, 121]. Most of the literature is related to specific diagnoses, like diabetes, metabolic syndrome, CVD, asthma and COPD. Educational programmes have benefits in areas such as diabetes, asthma, epilepsy and mental health [55] and improved patient wellbeing in COPD [126]. However, there is no clarity of the active ingredients in successful interventions [55].

Generic programmes targeting educational interventions related to overweight and obesity are few. Some of the explanation may lay in the lack of recognition of overweight and obesity as chronic disease/conditions. In Europe to date, only Portugal recognises obesity as a chronic disease, with the American Medical Association (AMA) recognising obesity as a chronic medical disease in 2013 [127] and the Canadian Medical Association (CMA) in 2015 [128]. The World Obesity Federation considers obesity as a chronic relapsing disease process [1, 129]. However, recognition of obesity as a disease is by no means universally accepted [130].

Due to the limited research on SMS in overweight and obesity in particular, lifestyle interventions, treatments and outcomes for other

chronic diseases (diabetes, metabolic syndrome, CVD) will be included to give an overview of some of the knowledge in the field of SMS, SMI and similar lifestyle interventions.

Treatment in overweight and obesity and outcomes of lifestyle interventions

Guidelines for obesity management in adults define obesity as a chronic metabolic disease. Physicians have a responsibility to recognise obesity as a disease and help patients with appropriate prevention and treatment [15, 131]. On an individual level, WHO suggests that people limit energy intake from fats and sugars, increase consumption of fruit and vegetables and engage in regular physical activity [1, 19]. Systematic reviews and meta-analyses show that interventions designed to target dietary and physical activity behaviours are recommended counselling strategies for lifestyle change [109, 132]. In traditional treatment and counselling for overweight and obesity, a combination of physical activity, diet and behaviour change therapy is recommended and is the most effective strategy for weight loss and weight loss maintenance [16, 109, 132-134]. European guidelines support appropriate goals of weight management, emphasising realistic weight loss to achieve a reduction in health risks. Balanced hypocaloric diets result in clinically meaningful weight loss and aerobic training for reducing fat-mass is optimal. Cognitive behavioural therapy should directly address behaviours that require change for successful weight loss and maintenance [15].

A systematic review and meta-analysis of randomised controlled trials provides evidence that behavioural treatment strategies (goal setting, MI, relapse prevention, cognitive restructuring) improve adherence to lifestyle intervention programmes in adults with obesity [135]. These strategies should be routinely incorporated into lifestyle intervention, obesity management and weight loss programmes with the aim of improving engagement and adherence. If adherence were improved, treatment effectiveness, health outcomes and the ultimate burden of chronic disease could also be improved [135].

Psychological mechanisms, like higher autonomous motivation, self-efficacy and self-regulation skills (such as self-monitoring) are the best predictors of beneficial weight loss and physical activity outcomes [125, 136] and strategies to build self-efficacy are supported and recommended [109, 125, 137, 138]. A study from learning and Mastery Services in hospitals, show that persons with morbid obesity had increased self-efficacy and self-esteem after attending patient education programme [139]. Weight maintenance is also associated with better coping strategies and the ability to handle life stress. Autonomy, assuming responsibility in life and overall psychological strength and stability is important. Factors that may pose a risk for weight regain include a history of weight cycling, disinhibited eating and eating in response to negative emotions and stress [136]. Health risks, pride in holding on to new habits and experiencing an effect motivated individuals to maintain changes [112, 140]. Weight management programmes and lifestyle interventions have shown to improve HRQoL [141, 142]. Social support is believed to contribute to weight loss success and motivation to maintain changes [140], yet the type of support received is rarely assessed [143].

The use of person-centred approaches, such as MI and individual tailoring, with a focus on participants' needs and everyday lives, is important [105, 119, 144]. Person-centred approaches and the use of MI appear to enhance weight loss and maintenance [132, 137, 145-149]. Establishing a trusting relationship between the provider and the service user is essential [105, 150, 151]. A cluster of cognitive behavioural strategies are recommended, such as goalsetting, problem-solving, self-monitoring [109, 132, 138, 145, 152, 153], information and instructions [132, 140, 154], skills training, relapse prevention [109, 132, 152] and providing feedback [109, 140, 145, 150]. A study of overweight or obese adults with a metabolic syndrome showed that participants reported the most useful programme components as including food-label reading, cooking sessions and learning new and different physical exercises. The

authors suggest that active training in lifestyle modification is more effective than passive provision of guidelines [153].

Positive body image and flexible eating restraint may also improve outcomes [125]. Multidisciplinary approaches [138] and interdisciplinary cognitive-behavioural-nutritional therapy, with long term treatment and psychological follow-up, have improved the therapeutic success [155]. Increased effectiveness was also associated with increased contact frequency [109, 132] and long term support [109, 138, 152, 153, 156-158]. Group support and training with others are highlighted in several studies as increasing weight loss success, enhancing lifestyle changes and managing chronic conditions [59, 119, 150, 153, 159-161].

Studies from Sweden and Denmark, which, to a certain extent, can be compared to HLCs, show that patients and service users increased their physical activity and quality of life after attending a 'physical activity on prescription' in primary care [162, 163]. Exercise prescribed by GPs may be an important health-improving intervention for inactive individuals with lifestyle diseases. However, dropouts in these studies were considerable, with 48% at 6 months [162] and 44% after 16 months [163].

Guided self-help treatment on the internet, based on cognitive behaviour therapy, has shown positive results (in binge eating disorder) [164]. A RCT study on educational programmes or therapy focusing on psycho-educative approaches, including healthy eating and physical activity (such as 'Kg-free', an acceptance, mindfulness and compassion-based group intervention) for women struggling with their weight and internalised weight stigma, showed positive outcomes for mental health and reduced weight stigma [165]. Several behaviour change theories (e.g. social cognitive theory, the health belief model, the transtheoretical model, the theory of planned behaviour and self-determination theory) have been proposed to understand health behaviour change, with

research showing a global positive effect of these theory-based interventions [166].

Patient education interventions can be offered in various forms [161]. Recommendations for intervention processes and delivery strategies in counselling individuals to promote dietary and physical activity changes involve both individual and group-based strategies [109]. Group-based self-management patient education programmes are seen as beneficial [167]. There is evidence that group-based weight management education is more effective than usual care or individual approaches, in relation to improvements in clinical, lifestyle and psychosocial outcomes, empowerment, self-efficacy and self-management skills [161, 168]. The group process during patient education might be more important for improving coping skills than the content of the program [159]. Patient education programmes are an effective tool to reduce costs and provide benefits in terms of quality adjusted life years. [169].

Conventional prevention and treatment for weight loss (behaviour modification aimed at reducing energy intake and increasing energy expenditure) often fails over the long term [17], but is sometimes successful in the short term, while bariatric surgery has been shown to be successful over the long term [170]. The probability of a person with obesity attaining normal body weight is low [171]. It is a problem that most efforts to change health behaviours have had limited success [29, 172] and more effective management strategies are needed for the treatment of overweight and obesity [17, 172]. The prevalence of overweight and obesity, and the subsequent number of NCDs, gives a picture of the population's health. This severe public health problem, indicated by its growing rates [1], gives reason to believe a resistance to prevention and treatment efforts [31]. The complexity of its underlying causes, which include individual, biological and environmental (psychosocial) factors, make it difficult to implement effective interventions for overweight and obesity [31, 173]. Addressing these challenges might also include policy changes [17, 28].

Considering the poor long-term outcomes of overweight and obesity interventions, focusing on diet, exercise and individual willpower, which is referred to as the personal responsibility attribution, may not be a sufficient solution to the obesity epidemic [31]. Dietary and activity habits are processes and practices embedded in social life, ingrained in people's everyday lives and their habits and routines. There is a need to rethink the idea that it is enough to give people information and steer them towards empowering and motivating themselves to generate their own solutions to their problems [29]. A more potentially promising approach is to prevent the development of obesity by tackling the toxic environment [174]. The control of overweight and obesity ultimately require population based strategies, not just individual behaviour modification [1, 175]. The necessity to include individual, psychological, biological, political, environmental and social factors is well documented [1, 4, 29, 31, 173, 176-179]. Applying a system-oriented multilevel framework to address obesity [176] or a social-ecological theory or model to guide health promotion in the community towards environmental and policy change are suggested [173, 177-180]. Addressing weight stigma in obesity prevention and treatment is also warranted [42].

3 Methodology

This chapter describes the methodological approach, including the research design and the ontological and epistemological approach of hermeneutics and social constructivism in this study and research strategies. The importance of the researcher's preunderstanding in hermeneutic philosophy and method will also be described. A description of participants and recruitment will follow, together with data collection methods, including individual interviews (Papers I and II) and focus group interviews (Paper III). The two analytical methods, the qualitative content analysis (Papers I and II) and the thematic analysis (Paper III) used in the papers will be outlined and, finally, ethical assessments will be presented.

3.1 Research design

Qualitative methods are useful when studying human characteristics or when searching for deeper understanding of a phenomenon. The goal of qualitative research is the development of concepts that help us to understand social phenomena in natural settings [181, 182]. Malterud explains that qualitative methods are built on theories about human experiences (phenomenology) and interpretation (hermeneutic) [182]. According to Polit and Beck, hermeneutics is a research tradition drawing on interpretive phenomenology, which focuses on the lived experiences of humans within their lifeworld and how they interpret those experiences [181]. A qualitative design may provide insight into complex phenomena (e.g. overweight and obesity) and an explorative and interpretative design, founded in hermeneutic methodology and tradition, was chosen in this study. The aims and the research questions decided the design and methods [183] and, to answer the research questions, qualitative interviews with the service users and HPs in HLCs were conducted. The study consists of three sub-studies. The service users in sub-studies 1 and 2 are the same participants. The textual data

material was analysed using qualitative content analysis (Paper I and II), and thematic analysis (Paper III). An overview of the research design and sub-studies is shown in table 1.

Table 1. Overview of research design and sub-studies

Sub-Study	Research question	Participants	Method	Analysis	Paper
1	1. How do service users participating in lifestyle interventions in HLC experience living with overweight or obesity? 2. What are the service users' perceptions of seeking help to change dietary and activity habits?	13 service users afflicted by overweight or obesity that have participated in a lifestyle course in primary care HLCs	Individual interviews	Qualitative content analyses	Paper I
2	3. What do beneficial SMS and user involvement imply for persons afflicted by overweight or obesity attending lifestyle interventions in HLCs?	13 service users afflicted by overweight or obesity that have participated in lifestyle course in primary care HLCs	Individual interviews	Qualitative content analyses	Paper II
3	4. How do HPs in HLCs provide SMS in lifestyle interventions for persons afflicted by overweight or obesity? 5. What does user involvement imply for HPs in HLCs?	10 healthcare professionals that have experience of lifestyle courses as educators/providers in HLCs.	Focus group interview	Thematic analysis	Paper III

3.1.1 Scientific approach and paradigm

According to Lincoln and Guba [184], qualitative research is often grounded in constructivism, which sees knowledge as relative and socially constructed [184]. In constructionism, everyday knowledge is the outcome of people having to make sense of their encounters with the

physical world and other people, while social scientific knowledge is the outcome of social scientists reinterpreting this everyday knowledge into technical language [185]. As such, qualitative research is concerned with understanding a phenomenon from the perspective of those who live it, with the researcher as a human instrument [184]. This study has an epistemological perspective of social constructivism, which, according to Blaikie, is likely to be used with an abductive research strategy [185] and is associated with the philosophy of hermeneutics [186]. Qualitative research interviews (applied to collect data in this study), according to Kvale and Brinkmann [187], are an active form of knowledge production, a process of recognition that provides us with valid knowledge about our conversational reality and a meaning-making practice [187]. A social constructionist approach views data as dialogic and co-created in and through conversation and language [185, 187].

3.1.2 Interpretivism and hermeneutic philosophy and methodology

In this study, an interpretative exploratory design grounded in hermeneutic tradition was chosen to gain a deeper understanding of service users' needs, beneficial SMS and user involvement. Hermeneutics has its basis in humanistic and holistic research and focuses on understanding, meaning and interpretation of meaning. Understanding is the science of meaning [188] and it is through hermeneutics that the essence of people's perceptions, beliefs, values and commitments can become known and clarified [98, 189, 190]. Hermeneutic reading and interpretation represent a textual method of analysis for finding meaning in human experiences of the world. Two embedded assumptions of hermeneutics are that humans experience the world through language and that this language provides both understanding and knowledge [191]. The purpose of hermeneutic interpretation is to achieve valid and general understanding of a text's

meaning [187]. However, there is no such thing as a correct interpretation [192].

Gadamer described the interpretive process as a circular relationship, known as the hermeneutic circle, where one understands the whole of a text in terms of its parts and the parts in terms of the whole. In this view, a researcher enters into a dialogue with the text, in which the researcher continually questions its meaning [189]. Gadamer's idea of hermeneutics emphasises the embeddedness of language in our understanding of the world. His work helped extend philosophical hermeneutics to critical hermeneutics by stressing the importance of traditions, background and history in our ways of understanding. Understanding involves the 'fusion of horizons' [189, 193] and has some similarities to Giddens's notion of double hermeneutics [185, 194]. Giddens describe double hermeneutics as a hermeneutical spiral, where social scientists study people and society. They study what people do, how people understand their world and how this understanding may form their practice. By using new knowledge, insight and understanding, practices can be changed [185, 194, 195].

3.1.3 Research strategies

Blaikie [185] refers to four research strategies or logics (inductive, deductive, abductive and retroductive) to use when answering research questions and purposes. I have chosen to use inductive (coding and categorisation of empirical data), deductive (use of theory in the interpretations) and abductive (in the form of a hermeneutical spiral interpretation process) research strategies in my inquiry. My understanding rests upon a view of abduction as a hermeneutical spiral, which will guide this thesis approach. Abduction can be seen as a useful approach to answer the research questions, to answer what and how questions and as method of interpreting data [185]. Accordingly, a more comprehensive understanding of human behaviour and, in this study, a

deeper understanding of service users' needs, beneficial SMS and user involvement, can be achieved.

Abductive research strategies incorporate the motives and intentions that people use in their everyday lives and that direct their behaviour [185]. Abduction is an analytical methodological level of how to understand reasoning, logic or how to make inferences that are not inductively generalised or deductively theorised [185]. There is no clear consensus of abductive reasoning or logic and quite a few philosophical, health and social researchers have tried to understand and explain this concept [185, 186, 196-202]. An American philosopher, Charles C. Peirce, worked out the concept of abduction; which also had some similarities with the practical and methodological priorities in grounded theory [198, 199, 203].

Råholm [202, 204] describes abduction as a way to discover meaningful underlying patterns. The first stage of inquiry gives a creative insight into the link between raw data and suggests a new understanding of the phenomenon. The result of abduction is a possibility that we presently find more suitable compared to other possibilities [202]. Abduction is based on existing interpreted knowledge and its strength lies in generating new elements in the research process [204]. According to Danermark, abduction offers a plausible interpretation rather than producing a logical conclusion [198]. Feil and Olteanu (2018) suggest that abduction, and the Peirce theory of abductive inquiry at its core, treats objects of investigation (phenomena) within a hermeneutical framework, calling it 'Peirce hermeneutics' [201]. They also use the term 'interpretation of interpretation', which may also be understood as Gadamer's hermeneutical circle [189], a back and forth movement between preunderstanding and understanding, or Giddens's concept of double hermeneutics [195] as a form of hermeneutic spiral. Alvesson and Sköldbberg suggest that a hermeneuticist would claim that abduction implies a kind of hermeneutical spiral; an interpretation of facts in which

we already have a preunderstanding [205]. Figure 2 demonstrates this hermeneutical spiral and the interpretative abductive process.

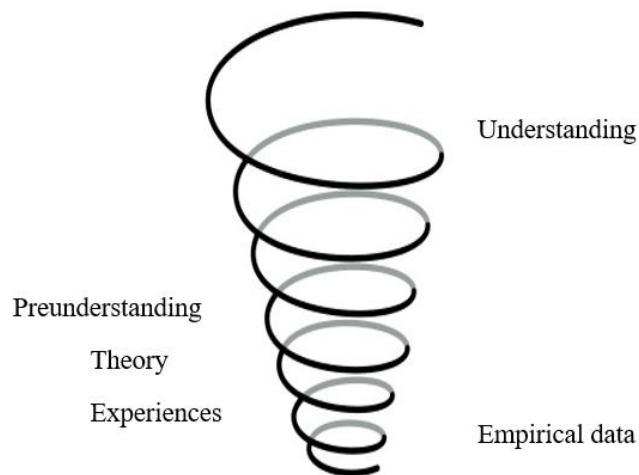


Figure 2. The hermeneutic spiral demonstrating the interpretative abductive process

3.1.4 The researcher's preunderstanding

A researcher's preunderstanding originates from their background; we always carry our experiences, attitudes and expectations in our encounters with others and the world we live in. Gadamer advocated for continually striving to identify our prejudices or pre-understanding and to be aware of how this may affect the inquiry [189]. From a hermeneutic perspective, personal experiences are not considered an impediment to the researcher's ability to understand, but a prerequisite [193]. Therefore, reflexivity in research is a process of critical reflection both on the kind of knowledge produced from research and how that knowledge is generated. A reflexive researcher is one who is aware of all potential influences and is able to step back and take a critical look at their own role in the research process [206].

I have worked for eleven years as a public health nurse in primary healthcare. My clinical experience as a public health nurse includes participating in an interdisciplinary team helping children, adolescents and their families to change their dietary and activity habits. My background and knowledge advocate for a health promotion perspective [70, 71, 88], that it is most important to prevent illness and diseases and that the main focus of healthcare must be on health promotion and prevention rather than treatment. This may be a valuable insight concerning lifestyle change and social stigma or weight bias. Preunderstanding may influence both understanding and misunderstanding and lead to a bias related to people's attempts to change lifestyles. It was important to reflect on my preunderstanding through the whole research process, but especially in the interviews and throughout the analysis, to not force the interviews and the participants' answers in one direction. It was also important to be open in the interpretation of the text, as the purpose was to explore the phenomenon, determine what information the text contained and not to hinder the disclosure of data. The research group (first author and co-authors in the three papers) have various disciplinary and clinical backgrounds and the text was discussed throughout the whole analytical process, which helped increasing the trustworthiness.

3.2 *Participants and recruitment*

3.2.1 *Recruitments of the service users (Papers I and II)*

An invitation with a description of the study was sent to 20 local communities on the west coast of Norway, requesting permission to conduct a study in local HLCs. Administrators responsible for each HLC were asked to send requests to participants who had participated in diet and/or activity interventions. Inclusion criteria were persons aged 18 to 80, who had contacted the HLC to obtain help to change their dietary

and/or activity habits, were afflicted by overweight or obesity and who were able to speak and understand the Norwegian language. A purposive sampling technique [207, 208] was used to identify participants for interview, to ensure that the sample included individuals of both sexes and various ages, from small and medium-sized municipalities, with experience of living with overweight or obesity. The individual interviews in this study included 13 participants, eight women and five men, aged 30 to 69, (table 2 and 3), recruited from five different Healthy Life Centres in Norway.

Table 2. Participant characteristics (sub-study 1 and 2)

Characteristics	Number of participants
Gender:	
Female	8
Male	5
Age:	
30-69	13
Civil status:	
Single/divorced	1
Widow/widower	1
Partner/married	11
Education:	
High school	11
Bachelor's degree or higher	2
Occupational status:	
Employee 50-80%	4
Unemployed	2
Disability pension	5
Retiree	2
Participation in HLC:	
Healthy diet courses	11
Activity groups	12
Individual conversations with HP	13
Participation time in HLC	6 months – 3½ years

Table 3. Self-reported challenges, strains and additional diagnoses (number of participants in brackets)

One or several somatic diagnoses: Type 2 diabetes (3), cardiovascular disease (CVD) (4), Chronic Obstructive Pulmonary Disease (COPD) (2), celiac disease (1), multiple sclerosis (MS) (1), sleep apnoea (1), various chronic pain conditions (8), fibromyalgia (3), cancer (2)
One or several psychosocial strains and challenges: Anxiety (3), depression (4), loss and grief (1), identity reactions (12), eating disorders (2), suicidal thoughts (2), alcohol abuse (1), isolation (6), financial difficulties (2)

3.2.2 Recruitment of healthcare professionals (*Paper III*)

An invitation describing this study was sent to 20 administrators responsible for HLCs in the municipalities on the west coast of Norway, asking for requests to be sent to HPs working in the respective HLCs to participate in focus group interviews. The inclusion criteria were HPs with a minimum of six months' experience of lifestyle interventions in HLCs. Purposive sampling [207, 208] was used to establish focus groups with variation in terms of occupational background, well-established and new HLCs, as well as urban and rural municipalities. Ten HPs (nine women and one man), aged 26 to 49 years, from eight different HLCs participated in two focus group interviews. The HPs in focus group 1 (FG 1) were two physiotherapists, one public health nurse and one psychiatric nurse, while four physiotherapists, one bachelor's in public health and one nutritionist took part in FG 2. Their clinical experience in HLCs ranged from one to seven years. Due to the fact that there was only one male participant, with physiotherapists in majority, a table of each HPs' backgrounds will not be attached to safeguard confidentiality. Characteristics of HLCs and HPs in the two focus groups are listed in table 4:

Table 4. Characteristics of HLCs and HPs in the two focus groups

	Occupational background	Gender	Years of clinical experience (HLCs)	Rural / Urban	Population	Years at HLC establishment	Number of employees
Focus group 1 (FG-1)	Physiotherapists (2), psychiatric nurse (1) and public health nurse (1)	Female (3) Male (1)	1-7	Urban (2) Rural (2)	8.500 - 38.000	2-5	1-2
Focus group 2 (FG-2)	Physiotherapists (4), bachelor's in public health (1) and nutritionist (1)	Female (6)	2-7	Urban (3) Rural (1)	12.000 - 19.500	2-7	1-4

3.3 Data collection

3.3.1 Qualitative research interview – individual interviews and focus-group interviews

Interview inquiry is a well-known and well-used method in qualitative research. Qualitative methods, such as individual in-depth interviews and focus group interviews, are legitimate techniques used in health and social sciences to gather information and experience from participants, or when searching for deeper understanding of phenomena [187, 209]. The aims and the research questions decide the methods used [181-183].

The purpose of qualitative research interviews is to produce knowledge and to explore the content of meaning in social and cultural phenomena. Individual qualitative research interviews are based on a professional conversation regarding daily life, where the interviewer determines the topic and defines and controls the conversation [187]. Due to the lack of knowledge of service users' experiences and perceptions of their participation in Norwegian HLCs, individual interviews were an

appropriate and relevant method to gain this knowledge and understanding. What emerges in the interview represents the specific understanding people have when they articulate their own experience, reflecting the subjective experience individuals have prior to scientific explanations [187].

Focus group interviews are suitable for exploring new areas with sparse knowledge, as in the case of HPs working in HLCs [209]. According to Morgan [210], the characteristics of focus groups are their explicit use of group interaction to produce data and insights that would be less accessible without the interaction found in a group. The researcher, who often takes the role of moderator, decides the topic and group discussions provide direct evidence about similarities and differences in the participants' opinions and experiences [210].

3.3.2 Data collection (Papers I and II)

This study had three sub-studies (see table 1). To answer the research questions and collect empirical data, individual in-depth interviews were used to gather data from the service users' experiences of living with overweight or obesity and seeking help to change their lifestyle (Paper I) and to gather data on their perceptions and experiences of beneficial SMS and user involvement (Paper II). I conducted all the individual interviews and, in accordance with the participants' wishes, 11 interviews took place in their local HLC and two at a university campus, over a period of five months in 2017. The form of the interview was open and the participants were invited to speak freely about their experiences. In an interview, ethical dilemmas can occur and how to respond to these is a question of ethical practice [206]. Before the individual interviews, precautions had been taken by reflecting on how to take care of the participants if the interview situation became unpleasant or challenging.

The interview setting was well prepared and the service users were offered something to drink and some fruit. Papers and pens to make notes

were placed on the table and the chairs was placed diagonally opposite each other. A respectful and non-judgmental atmosphere was emphasised. I tried to be open and give something back by telling the service users something about my background and interests and why this study was of my interest and tried to answer their questions in a helpful and friendly way. The service users spoke freely about their experiences, needs and values. They gave feedback to me and said that this was an interesting conversation and added that they were feeling safe and had a pleasant feeling of being taken care of. They thanked me for being asked to participate and that it was a pleasure to contribute to science.

A semi-structured interview guide with follow-up questions was used (appendix 7). Personal goals, challenges and need for help were explored. The main questions asked were: *How would you describe living with overweight and seeking help to change your lifestyle? What is your perception of changing dietary and activity habits? Why did you contact the HLC and ask for help?* (Paper I). *What is your perception of user involvement in the HLC? What type of help and support did you experience as beneficial in the HLC? What is important for you and what strengthens you?* (Paper II). At the end of each interview, I asked if there was anything the service users wanted to add. The interviews lasted between 60 and 130 minutes and were audiotaped and transcribed verbatim shortly after the interviews. The sample size for the individual interviews was guided by information power, as discussed by Malterud et al. [207].

3.3.3 Data collection (Paper III)

In sub-study 3, focus group interviews were used to gather information from HPs. The interviews took place at one university campus and one local HLC in 2017 based on practical considerations, such as the shortest possible travel distance for the participants. Most of the participants had met before and several of them collaborated in an inter-municipal

cooperation network. I invited the HPs to speak freely about their work in HLCs, to discuss their praxis and how they provided self-management support and what user involvement meant in lifestyle interventions in HLCs for persons afflicted by overweight or obesity.

The form of the interview was open and I tried to be respectful and friendly, to make the HPs feel safe enough to express their perceptions. At the beginning of the interview, the participants were served sandwiches, water, tea and coffee, which facilitated small talk. The moderator and co-moderator presented their backgrounds and clinical and academic interests, after which, the participating HPs presented their backgrounds and clinical experiences. The study was presented and the HPs were invited to participate in a discussion about beneficial SMS and user involvement. The HPs played an active part in the discussion in a highly reflective manner. Their familiarity from previous networks and working together appeared to make them feel comfortable. The HPs expressed gratitude for being able to participate in providing more knowledge about the HLCs and they felt cared for in the focus group interviews.

A topic guide was used (appendix 6) and the main questions were: *What is your experience/perception of beneficial help and support for the service users attending lifestyle interventions in HLCs? How do you promote self-management and user involvement? What does user involvement imply for you?* Each focus group interview lasted 120 minutes and was audiotaped and transcribed verbatim. Information power, as discussed by Malterud et al. [207], guided the sample size and the number of focus groups.

3.4 Data analysis

Qualitative data can take the form of narrative materials, including verbatim dialogue between an interviewer and a respondent. Analysing such qualitative data, according to Polit and Beck [181], is a challenging

enterprise, because there are no universal rules. The purpose of data analysis is to organise, provide structure to and elicit meaning from data. In qualitative studies, data collection and data analysis often occur simultaneously and the search for important themes, categories and concepts starts early in the process [181]. It is necessary to match the specific research purpose or aim with the appropriate analysis method [181]. Adhering to an analytic procedure (e.g. qualitative content analysis [211] and thematic analysis [212]) may increase the trustworthiness of the study [213]. Careful description of the approach to content and thematic analysis used may strengthen the method's scientific base [212, 214] (e.g. inductive approach described by Krippendorff [215] or conventional, direct or summative content analysis described by Hsieh and Shannon [216]). Content analysis offers researchers a flexible and pragmatic method for developing and extending knowledge of the human experiences of health and illness [216]. In the next paragraphs, the two analytical methods used in this study will be presented.

3.4.1 Analysis method – qualitative content analysis (Papers I and II)

There are various approaches to qualitative data analysis and I chose qualitative content analysis for papers I and II. The theoretical framework for qualitative content analysis in this study is grounded in inductive, deductive and abductive approaches. A data-driven inductive approach is described by Hsieh and Shannon [216] and a text-driven search for patterns is described by Krippendorff [215]. The abductive approach is described as a combined approach and as a movement back and forth between inductive and deductive approaches [217] or, as described earlier and demonstrated in figure 2 (p.38), as a hermeneutical spiral.

Qualitative content analysis involves breaking data down into smaller units, coding and naming the units according to the content they present

and grouping these coded materials based on shared concepts [181]. Graneheim and Lundman [211] describe the analytical steps in qualitative content analysis in nursing research. Their framework has later been described to be in accordance with inductive, deductive or abductive strategies [214]. Creating *categories* is the core feature of qualitative content analysis. A category deals with the question ‘what?’ and can be identified as a thread throughout the codes. As Graneheim and Lundman see it, a category refers to the descriptive level of the content and is an expression of the manifest content of the text – what the text says [211, 214]. The concept of *theme* can be considered as the thread of underlying meaning found through condensed meaning units, codes or categories, on an interpretative level. A theme is an expression of the latent content of the text – what the text talks about. This underlying meaning, the latent content, can be interpreted on various levels of abstraction and interpretation [214]. Both manifest and latent content deal with interpretation, but the interpretations vary in depth and level of abstraction [211, 214]. Both a phenomenological description of the manifest content (categories close to the text) and a hermeneutical interpretation of the latent content (themes distant from the text) [211] were used in this study, to obtain a deeper understanding of the service users’ needs, beneficial SMS and user involvement. The theme development required interpretative efforts, which resonates with the interpretivism and hermeneutical philosophy and methodology adopted in this study.

In papers I and II, the data material consisted of about 200 pages of verbatim transcribed text and was analysed using qualitative content analysis [211, 214]. In line with the analytical steps in this method, the transcripts were read repeatedly to obtain an overall impression and to find preliminary themes and categories. The first author and co-authors of the papers read all the transcribed interviews and the transcripts were discussed at group meetings. The text was divided into meaning units, condensed and further abstracted and labelled with a code by the first

author. A matrix was used to keep an overview of the codes, condensed text and meaning units. The various codes were sorted into sub-categories and categories, by looking for the manifest content, the ‘what’. In this early stages of an inductive approach, engaging with literature was avoided. The categories were further revised, renamed and sorted into sub-themes and themes by asking ‘What is this about?’ – what is the underlying meaning. Reflection on the sub-themes and themes and a review of the literature related to the sub-themes (e.g. theory of self-conscious feelings and theory of stigma) was deductive and helped the naming and labelling of themes and main-themes. The interpretation of the categories into themes (interpretation of the underlying meaning) [193, 214] took the form of a hermeneutic spiral in an abductive approach and method [201, 217], using previous literature, theory and pre-understanding (theoretical and practical) in the interpretation process (figure 2, p.38). The discussion of the data material, categories and themes between the first author and co-authors took place in several meetings over a period of time and the researchers’ various disciplinary backgrounds and clinical experiences enriched the analysis and interpretation. This method appeared to be appropriate to analyse the text from the individual in-depth interviews in this study, allowing for both descriptions and wider interpretations.

3.4.2 Analysis method – thematic analysis (Paper III)

Braun and Clarke [212] argue that thematic analysis should be considered as a fundamental method for qualitative analysis and a method in its own right. One of the benefits of thematic analysis is its flexibility and theoretical freedom. Thematic analysis is not tied to a particular theoretical or epistemological position; however, it is compatible with both essentialist and constructionist paradigms. This correspond to the social constructivist paradigm adopted in this study. The most important issue for researchers is to be clear about what they are doing, why they are doing it and how they did it [212]. The aim is to

provide description of both the manifest (semantic, explicit) and latent (underlying interpretative level) content, pattern responses or meaning in the text to develop a new understanding of the phenomenon under study and to answer the research questions [212]. In the theoretical position of constructionism and the importance of the researcher's pre-understanding, I am aware that the themes are developed as a co-productive process, as described by Kvale and Brinkmann [187]. It is important that the theoretical framework and methods match the research question and that the theoretical framework is clear and transparent [212]. The approach in the coding process was mainly inductive and the theoretical framework was grounded in a text-driven search for patterns, as described by Krippendorff [215]. The approach in the interpretation and theme development was mainly abductive, in the form of a hermeneutical spiral (figure 2, p.38) [185, 186, 189].

In Paper III, the data materials consisted of about 70 pages of transcribed text. A thematic analysis, as discussed by Vaismoradi et al. [218] and described by Braun and Clarke [212], was used to analyse the data from the focus groups with the HPs. The aim was to achieve a deeper understanding of how HPs provide SMS and what user involvement implies in lifestyle interventions in HLCs. Thematic analysis is a six-phase flexible method to identify, analyse and report patterns and themes in qualitative data. It is a recursive process and involves constantly moving back and forth between the coded extracts and the entire data set [212]. In the first phase, all the transcripts from the focus group interviews were read repeatedly by all authors, searching for patterns and themes, and discussed in a group meeting. In the second phase, the patterns, meaning units and themes were identified and I generated initial codes. The coding process, entailing data-reduction relevant for the research question and categorisation of the meaning units, was conducted using a matrix. In this early stage, the analysis process was more of an inductive approach, where there was no engagement with literature and previous research. In the third phase, related text elements

from the coding-schemas were reassembled in a new matrix, then abstracted and grouped into sub-themes and themes using mind maps. Data were analysed within each of the focus groups and across the groups to identify both common and specific themes. In the fourth phase, the themes were reviewed to check the coherence between the categories in the themes and the distinctions between the themes. In the fifth phase, the themes were defined and named, then refined and revised, to identify the essence of what each theme was about and ensure there was not too much overlap between the themes. This was a challenging process because of the interrelationship between the themes. This process of revising, defining and naming the themes was a time-consuming process involving reading and rereading the themes in relation to the entire data material. The sixth phase involved writing up the results for publication in a convincing and valid way. This was completed with several quotations, which captured the essence of the themes to answer the research question. The reflection on the sub-themes and themes, entailing a review of the literature related to the sub-themes, also helped with the naming and labelling of themes and main-themes (e.g. theory of self-esteem and dignity, theory of ethical responsibility).

The interpretation of the categories into themes (interpretation of the underlying meaning) [193, 214], took the form of a hermeneutic spiral in an abductive perspective [201, 217], using previous literature, theory and pre-understanding (theoretical and practical) in the interpretation process. In paper III, the discussion of the data material, the interpretation and the defining and redefining the themes was a process and dialogue between the first author and co-authors. According to Braun and Clarke, themes need to be concise or something important in relation to the overall research questions [212]. However, Sandelowski and Leeman prefer labelling the themes and overall theme with a phrase or sentence to capture complete ideas [219]. This was also a preferred choice in this study, especially in papers II and III. The consolidated criteria for reporting qualitative research (COREQ) checklist [220] was used in the presentation of the analysis and results in all three papers.

3.5 Ethical considerations

Ethical guidelines underlie all scientific research [221] and ethical considerations are present throughout the whole research process. Research in human and social sciences is regulated by scientific, ethical and juridical norms [222], and medical science is based on four main ethical principles; respect for autonomy, nonmaleficence, beneficence and justice [78]. Respect for human dignity includes personal integrity, respect for privacy, autonomy and safeguarding against harm. Researchers have a duty to inform, obtain consent to participate and secure the confidentiality of the participants [222].

This study was registered and approved at the Norwegian Centre for Research Data (NSD) in 2016, with project number 48025. The ethical guidelines of the Helsinki Declaration were followed [223]. Participants received oral and written information about the study and signed an informed consent form before the interview started. The HPs gave their oral consent to participate before the focus group interviews started. Participation in the study was voluntary and the participants were informed before the interview started about their right to withdraw at any stage, without this compromising their future health care (relevant in sub-study 1 and 2).

Confidentiality in research implies that private data identifying the participants will not be disclosed. The participants were informed about confidentiality, how the data will be handled and who will have access to the interviews or other material [187]. For reasons of confidentiality, the participants in Papers I and II are coded by gender and age-cohort. In Paper III, the participants are coded by number and focus group number, due to the fact that there was only one male participant and a majority of physiotherapists.

4 Results

The lack of knowledge and research on how HLCs, as a healthcare service, may help people change their lifestyle and how HPs provide SMS was the reason for conducting these studies. The three sub-studies contribute to a deeper understanding of service users' need for help, beneficial SMS and user involvement, from both the service users' and HPs' perspective in Norwegian primary care HLCs. The tables of the analysis (sub-themes, themes and main-themes) are shown in appendix 1 and in the three papers. The findings from each of the three papers will be presented before the subsequent discussion.

4.1 Paper I

The aim of this study was to explore HLC service users' experiences of living with overweight or obesity and perceptions of seeking help to change dietary and activity habits.

This explorative study of 13 service users, using individual in-depth interviews, found that *searching for dignity* reflected the participants' overall experience of living with overweight or obesity and their perceptions of seeking help to change their dietary and activity habits. This main theme was based on the themes 1) *Needing to justify avoidance of personal responsibility* and 2) *A desire to change*. For all the service users, living with overweight or obesity impaired their body image and self-esteem, causing a negative self-representation of living a perceived wrong lifestyle. The service users were seeking help with lifestyle changes at the same time as they felt shame about their body and not managing on their own and guilt at not adhering to a healthy diet or doing enough exercise. They had earlier experiences of losing weight and relapses and experienced a constant struggle between a healthy lifestyle and pleasure. They felt a need to explain their weight gain and barriers to change. On the other hand, they desired change and were

motivated and felt pride about taking the initiative and asking for help, exhibiting willpower and discipline. The service users tried to balance protection and disclosure of self with pride for taking the initiative and responsibility for change to feel normal, accepted and worthy.

4.2 Paper II

The aim of this study was to explore beneficial SMS and user involvement for persons afflicted by overweight or obesity attending lifestyle interventions in Norwegian Healthy Life Centres.

Semi-structured individual in-depth interviews were conducted with 13 service users, and the analysis identified that *Regaining self-esteem and dignity through active involvement and long-term self-worth support in partnership with others* reflected the service users' perceptions of beneficial SMS and user involvement. This main theme comprised four themes: 1) *Self-efficacy through active involvement and better perceived health*, 2) *Valued through HPs' acknowledgement, equality and individualised support*, 3) *Increased motivation and self-belief through fellowship and peer support* and 4) *Maintenance of lifestyle change through accessibility and long-term support*.

Overall, the participants were very satisfied with the HLC and the help they had received. They described help as supporting self-worth and increasing their belief in self-management, but they also needed their significant others. They perceived being strengthened by being invited to become involved in an equal partnership, built on a trusting relationship with competent HPs. Participation in supervised groups increased motivation and several of the service users expressed a need for long-term support. User involvement was described as acknowledgement and the HPs' ability to personalise and tailor SMS and lifestyle interventions to the service users' needs and everyday life. Emotional support, increased motivation and self-efficacy as well as a feeling of dignity and a more positive self-esteem, seem to be some of

the successful ingredients in the process of weight self-management and individual empowerment.

4.3 Paper III

The aim of this study was to explore how HPs provide SMS and what user involvement implies for HPs in HLCs.

This third study explored how ten healthcare professionals provide SMS and what user involvement implies for them. Using focus group interviews and thematic analysis, one overall theme was identified: *A partnership based on ethical awareness, non-judgemental attitude, dialogue and shared responsibility*. This main theme comprised four interrelated themes: 1) *Supporting self-efficacy, self-worth and dignity through an attitude of respect, acknowledgement and generosity*, 2) *Promoting self-belief and self-perceived health*, 3) *Collaborating and sharing responsibility* and 4) *Being flexible, adjusting and sharing time*.

HPs provide SMS and user involvement in lifestyle interventions in HLCs through ethical awareness and a non-judgemental and open attitude and dialogue. Self-efficacy, self-worth and dignity are supported by a respectful way of being and acknowledging the service users for who they are. User involvement and SMS takes place through shared responsibility in a partnership with the service users. HPs take responsibility for creating a mutual and trusting relationship, emphasising equality, acknowledgement and generosity in this collaborative partnership. Flexibility and adjustment of the support to match the service users' needs and situation are essential and the temporal nature of the collaborative partnership and follow-up is important. The HPs seems to have learned the art of meeting the other in their most vulnerable situations and may help persons who are struggling with overweight or obesity so change their lifestyle and to regain dignity.

5 Discussion of results and methodology

The purpose of this chapter is to synthesise and interpret the findings (explore what the findings mean) and to discuss the methodological considerations.

5.1 Discussion of results

The results from each sub-study have already been discussed and interpreted by the use of previous research, literature and theories in the papers (I to III). The overall aim of this PhD thesis was to contribute to a deeper understanding of service users' need for help, beneficial SMS and user involvement in lifestyle interventions in Norwegian primary care HLCs, by exploring and interpreting service users' and HPs' experiences and perceptions of these phenomena. To answer this aim, this thesis had one research question: *How can service users' needs, beneficial SMS and user involvement be understood?*

The results from the three papers have been synthesised through an abductive strategy [185, 205] and applying some new theories and perspectives [224-230]. This process of interpretation was demonstrated in figure 2 (p.38) as a back and forth movement and interaction between the empirical data and literature (theory), preunderstanding and new understanding, as supported in the methodological literature of abduction and hermeneutics [185, 189, 201, 204, 205]. The interpretation process and this new synthesis of the findings are demonstrated in figure 3 (p.58).

I found that responsibility is a term that recurred in all three sub-studies. Lifestyle change seems to be a question of personal responsibility, as assuming and/or avoiding responsibility for healthy living (Papers I and II). In Paper III, I found that HPs reported a professional ethical responsibility for providing support and care. This further synthesis led to three new themes. The service users' needs, beneficial SMS and user involvement can be interpreted and understood as *The dual face of*

personal responsibility in health – the burden and the value, The art of acting ethically and The challenges and possibilities in sharing responsibility.

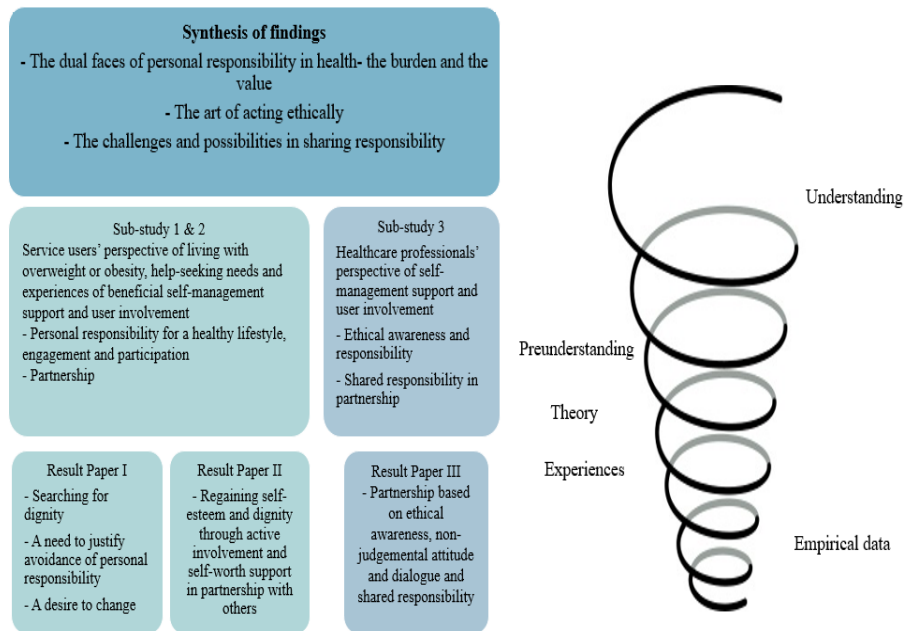


Figure 3. Overview of results (Papers I-III) and synthesis of findings

5.1.1 *The dual face of personal responsibility in health – the burden and the value*

In the following discussion of personal responsibility, I will highlight the concepts of shame, guilt and weight stigma (the burden), together with dignity and pride (the value).

The results from Papers I and II, and partly from Paper III, show that the service users' personal responsibility for health has at least two conflicting sides that need to be balanced. In papers I and II, the dual face of personal responsibility, burden and value, become evident. The service users explicitly describe their personal responsibility for living a

healthy lifestyle and that this responsibility can belong to no-one else (Paper I). This personal responsibility in health is also reported in previous studies [33, 231]. Self-management is highlighted in modern society and healthcare [66, 118, 232] and is defined as ‘an individual’s ability to detect and manage symptoms, treatment, physical and psychosocial consequences, as well as the lifestyle changes inherent in living with a chronic condition’ [114] (p.178), such as exercise and diet change. This ideal may be seen as a vast burden of responsibility for most people and for people living with a chronic condition, especially. When living in an obesity-promoting society, finding a balance in personal responsibility for health is necessary. Self-management in overweight and obesity, therefore, needs an expanded understanding.

The results in Paper I show that the service users are trying to explain their weight gain and to justify avoidance of personal responsibility. As suggested in Paper I, too much personal responsibility may lead to avoidance of responsibility. Personal responsibility for health is the dominant discourse in the discussions about obesity and symbolises self-control, hard work, ambition and success in life, including the control of behaviour and health [27, 28, 233, 234]. Failing to perform the ideal behaviour and follow health authorities’ recommendations for healthy living places many people in a situation whereby they feel guilty [27, 34, 48, 233, 235]. Lifestyle change has been described as an eternal struggle and a hopeless enterprise [60, 110], leading to feelings of unworthiness [27, 34, 236]. Paper I suggested that a one-sided focus on individual responsibility for health and health behaviour change adds more blame or shame to people afflicted by overweight or obesity, because it reflects the major attitude in the society towards individual responsibility.

The burden of personal responsibility, as shown in this study (Paper I), is related to the guilt, shame and weight stigma that follows being afflicted by overweight or obesity. Living with overweight and obesity, and seeking help for a perceived wrong lifestyle, led most of the service users to feeling shame for not managing on their own and guilt for not

maintaining diets and exercise. Guilt involves negative feelings about a specific behaviour or action taken by the self [237, 238], whereas shame involves negative feelings about the stable, global self [237, 238]. According to Mead, the development of self is a social process between the individual and the society, developing in our observation of others' reactions to oneself [239]. Giddens's view of modernity and development of self-identity illuminates an important aspect in how we view personal responsibility for health. Giddens [225] describes how self-identity is created as a reflexive project for which individuals are responsible. We are not what we are, we make ourselves. This reflexivity becomes continuous, asking 'Who am I? What am I doing?' and extends from the self to the body [225]. This self-understanding may be especially important for persons afflicted by overweight or obesity, understanding that they live a wrong lifestyle according to government-recommended guidelines and receiving feedback from society that they are less worthy because of their body size, which becomes their image or narrative of self.

The analyses of the empirical data in Paper I showed that service users are basically searching for dignity to develop a better self-image and maintain their integrity. The service users try to assume responsibility, describing pride in taking responsibility at the same time as they are trying to justify avoidance of personal responsibility (Paper I). It will be difficult to perceive dignity if deprived of responsibility and escaping from responsibility can result in a feeling of unworthiness, according to Eriksson [224]. As the results in Paper I show, feeling less worthy leads to a search for dignity and most of the service users regained their dignity through self-worth support from competent HPs when participating in the lifestyle interventions in HLCs (Papers II and III). Being in a position to help may be dependent on a HP's capability to decrease feelings of shame, guilt and embarrassment. When participating in lifestyle interventions, service users need HPs to be compassionate, understanding, genuinely interested and non-judgemental in their

support. Likewise, when it comes to the service users previous and present lifestyle, they do not need to hear that they have to be more responsible, eat less and do more exercise. The service users want to assume responsibility (Papers I and II), but are restrained from this due to emotional distress.

Reducing feelings of shame or increasing self-efficacy is a two-sided process and shame and self-efficacy are correlated [226]. The construction of agency and control is closely tied to self-efficacy beliefs [123]. Both self-efficacy and shame are constructs closely tied to the foundational construct of the self [240]. The study by Baldwin et al. [226] suggests a new direction of treating shame ‘through the backdoor’; that is, the improvement of self-efficacy (or the treatment of either aspect) could positively impact the other aspect. By helping patients heal from shame, self-efficacy could be raised, and by helping to raise self-efficacy, shame could be reduced [226]. Another study shows that social support in obesity treatment was related to higher self-efficacy, and suggest that HPs should emphasise strategies to increase self-efficacy in these interventions [241]. HPs’ efforts to increase self-efficacy by facilitating emotional and social support in group sessions (Paper I to III) can be seen as an important therapeutic contribution in HLCs to reduce shame in people afflicted by overweight or obesity. Service users’ active involvement and initiative also contributes to increased self-efficacy (Paper I -III) and seem to be essential elements in self-management and the feeling of being a responsible person (Papers I and II).

Several of the service users wanted to have a better appearance and feel normal. Most of the service users experienced low self-esteem, a sense of failure and negative feelings about their own appearance. Several were afraid of other people’s judgement and some of them experienced weight stigma (Paper I). This is also described in previous research [34, 39, 48, 231, 235]. The burden of guilt, shame and weight stigma, and the negative physiological and psychological effects on health, are supported

in previous research [38, 41-43, 48, 234, 235]. Tomiyama describe how this internalised weight stigma leads to stress-reactions and interferes with psychological and physical health, describing a vicious cycle of stress to obesity to stigma to stress [41, 43]. Stress and having a stigmatised body can impact physical health, increase overeating and decrease physical activity [43]. Williams and Annendale [36] explain how the broader understanding of the internalisation of weight stigma as a biopsychosocial process gets under the skin as an embodied process and that the lived experience of obesity stigma is mediated through the body. A Norwegian study exploring weight stigmatisation and what this does to people with obesity found embodiment through a stigmatising process of self-identity and social identity [242]. These perspectives may also be supported in Merleau-Ponty's phenomenology of embodiment – the relationship between the mind and the body, the objective world and the experienced world [243].

The search for dignity is a response to the shame and stigma linked to being afflicted by overweight or obesity. Goffman [244] describes stigma as a deviation from our expectations of normality and the body plays an important role in mediating the relationship between self-identity and social identity. Every social act is influenced by the chance of loss of face or public shame, and people worry about losing acceptance or social status in the eyes of others. According to Goffman, individuals see themselves through a mirror that reflects society's prejudices [244, 245]. The issue of self-representation and personal responsibility found in Paper I are in line with previous studies, where patients tried to defend themselves against shame [33] and presented themselves as responsible and pro-health in dialogues about lifestyle [33, 246]. The service users' need to present themselves as responsible, and having a personal responsibility for lifestyle change (Paper I) can also be supported by Goffman's argument that people wish to present themselves in a positive light [245].

The service users take responsibility by taking initiative to contact the HLCs because they want change, due to health risks and because they want better management of their daily life. The value of personal responsibility may be explained by the service users' descriptions of pride in taking responsibility for initiating lifestyle changes and pride in managing these changes (Papers I and II). Pride, such as in assuming personal responsibility, may be closely tied to the development of self-esteem [237, 247] and motivates human behaviour [247]. It seems like pride may be the most important human emotion when it comes to motivating social behaviour [237, 248], and have probably evolved to provide information about an individual's social status and acceptance [237]. This study highlights the meaning of pride in the service users' self-presentation and in the process of regaining integrity and dignity, which may be a positive mechanism in managing lifestyle change and individual empowerment (Papers I and II).

Dignity is the opinion of others about our worth [249]. Eriksson [224] explains how dignity has several dimensions, where dignity involves having worth. All human beings have, in the deepest sense, the same dignity and worth and everyone has their own understanding of their dignity. The inner dimension of dignity is associated with trustworthiness, sense of honour and morality. The outer dimension is associated with status, appearance and reputation [224]. The service users appreciated the friendly and non-judgemental way of being met and seemed to regain their dignity through self-worth support from HPs and from the social fellowship of peers in group sessions (Papers II and III).

The findings in this study, and the possible interpretation and understanding of this duality of personal responsibility, gives a deeper understanding of the service users' needs. The findings also give direction for the future development of HLCs and lifestyle interventions and highlight the necessity of addressing self-conscious feelings (guilt, shame and pride) as the underlying causes and nature of the problem, as

suggested in previous literature [42, 234, 236, 250]. It will be important to address both the burden and value of personal responsibility, to help service users manage lifestyle change and develop feelings of wellbeing and quality of life. The vast emphasis on personal responsibility for health may affect their capability to assume responsibility. Instead, a more relational, structural, social, political and cultural responsibility may decrease the burden of being afflicted by overweight or obesity and help people assume responsibility. The responsibility of HPs and a structural responsibility will be elaborated on in the next sections, starting with HPs' ethical and relational responsibilities.

5.1.2 The art of acting ethically

In the discussion in this section, I will focus on ethical and relational responsibility and awareness, a non-judgemental attitude and dialogue, a person-centred approach including the ethical principles of autonomy and beneficence and, finally, the empowering process as a result of HPs' ethical responsibility.

The results in Paper III from the HPs' perspectives and the results in Paper II where the service users describe beneficial SMS as self-worth support from competent HPs show that ethical awareness, action and responsibility are important parts of HLC's provision of SMS and user involvement. Ethical awareness, a non-judgemental attitude and dialogue (Paper III) may reflect an essential mechanism in user involvement and beneficial SMS for persons afflicted by overweight or obesity. This seem to involve the HPs' reflectiveness of the service users' needs, which include seeking help for a perceived wrong lifestyle and feeling stigmatised and ashamed (Paper I). HPs emphasise being flexible and adjust to the service users' needs, as described by Roger's [79] person-centred approach, where the focus is on creating a climate for change through acceptance and caring, emphatic understanding and listening, genuineness and an unconditional positive regard [79]. The findings in Papers II and III show that HPs participating in this study are

firmly rooted in humanistic values that support people's existential needs, as described by Kierkegaard [251], and emphasise an 'I and Thou' dialogue, as described by Buber [252] (Paper III). They are especially aware of the existential needs in persons struggling with overweight, obesity, low self-esteem and weight stigma, and that this awareness and ethical acting is essential if they are to support the service users to regain their integrity and dignity. Their practice involves acknowledgement and a non-judgemental attitude and dialogue, which is a prerequisite for working with sensitive problem areas and people in vulnerable situations. Overweight and obesity is for many people a sensitive topic. The HPs in this study seem to have developed the art of meeting the other human being's seeking help with lifestyle change. This way of being and doing seems to be an integrated practice in their work and the culture in HLCs (Papers II and III).

The findings in both Papers I and II show that service users perceive HPs as compassionate, sensitive, genuinely interested and as having a positive attitude toward those who are seeking help. A listening caregiver, who shows compassion and who has the courage to remain in the struggle of suffering from shame and guilt, can help others find a new direction in life in accordance with their own fundamental desires [253]. The results in paper II show that service users regain their self-respect and dignity through self-worth support from HPs and peers in group-sessions. The other participants contributed to fellowship, identity and sharing of experiences in a safe environment created by the HPs. HPs are described as 'building the service users up' by their way of being, their genuine interest, their competence and through their non-judgemental attitude and dialogue, making the service users feel appreciated and worthy. As discussed in Paper III, confirming a person's worthiness and sense of self involves showing genuine respect for each individual as a unique human being and such confirmation is an essential prerequisite for autonomy and integrity [254].

The ethical principles of autonomy and beneficence can be used to further illuminate and discuss the ethical responsibilities of HPs working in primary care HLCs. The relationship between the person-centred approach and the ethical principles of autonomy and beneficence are reflected throughout HPs' practice, their provision of SMS and how they involve service users in the interventions. Autonomy is an important principle in the ethics of caring and in user involvement [78, 92]. HPs in HLCs safeguard this principle by asking the service users what their goals and needs are and let those needs be the object of their support (Papers II and III).

Levinas's [255] theory of existential responsibility towards others was discussed in Paper III, providing a fundamental basis for discussing HPs' ethical responsibilities, including the principles of autonomy and beneficence. The autonomy principle is to safeguard service users' values, needs and decision-making in issues regarding their healthcare and treatment [78]. Beneficence is an ethical principle of wanting to do well and act in the benefit of others. As HPs, we are morally prohibited by rules of nonmaleficence from causing harm to anyone at all times [78]. It is a HP's responsibility to prevent all forms of violation and to give service users and patients the possibility to experience their full worth [224]. Levinas [255] believes that the access to another human being's face is immediately ethical and cannot be reduced to a perception. The face is significant in itself and in the meeting of another's face, there is a commandment to answer their appeal [255]. Ethical responsibility is about our commitment to take care of others and arises in face-to-face interactions with other people. According to Levinas, we are not free to choose our moral or ethical responsibilities [255, 256]. The results from Papers II and III show that HPs seem to understand their ethical responsibility. They have an ingrained understanding of the importance of autonomy (focusing on and tailoring SMS to service users' needs and situations) and beneficence (wanting service users to feel well and experience the effects of training and

lifestyle change). They also see the importance of getting to know the service users and of building a trusting partnership, taking their time, focusing on service users' needs and adjusting the offered support to meet their needs (Papers II and III).

The results in Papers II and III show an empowering process through HPs' ethical awareness and responsibility. The responsibility of the HPs to create a trusting relationship and a collaborative partnership based on acknowledgement and equality was described by both the service users (Paper II) and HPs (Paper III) as important for beneficial SMS and user involvement. The HPs' responsibility was described as letting the service users' voices be heard and emphasising equality, in addition to the necessity of the service users' experiential knowledge and complementary competence in the clinical partnership (Paper III). This shows that the HPs are aware of their responsibility as professionals and assign responsibility to the service users. This is in line with the intention of health promotion, user involvement and individual empowerment approaches described in the Ottawa Charter [70]. Empowerment is a process through which people gain greater control over decisions and actions affecting their life [71], but also a process of reducing guilt and assuming personal responsibility [89, 257]. Letting service users' voices be heard and having a person-centred approach enables people to increase control over and improve their health and life-situation and is integral to the achievement of social equity [70, 88, 89, 257]. This is also in accordance with Freire, who emphasises the importance of people taking responsibility for their problems, suggesting that people who do not feel personal responsibility for their problems will also not endeavour to find solutions to them [89]. Therefore, strengthening and empowering service users in the lifestyle change process is essential.

The HPs (Paper III) and the service users (Paper II) described the necessity of relationships and collaborative partnerships in accordance with the 'co-production' term of user involvement, where the patient

must co-produce the health service individually and/or collectively with healthcare professionals [94-96]. Interpersonal relationships between HPs, service users and peers in group sessions (Papers II and III) and informal social networks established outside HLCs (maybe on the HP's initiative) may foster collective actions [177]. Patient health behaviours and health literacy may become an effect of their HP's behaviour and their mutual interactions [122]. HPs have an important role in highlighting the importance of social, political and environmental factors in determining health and to collect and disseminate information about a host of opportunities in communities to policy makers [177], creating possibilities to manage, for example, physical activity on their own after the intervention period in HLCs. Empowerment holds both an individual and a structural dimension [90]; this structural dimension will be discussed further in the next section.

5.1.3 The challenges and possibilities in sharing responsibility

Under this third and last theme, I will highlight and discuss the concepts of sharing responsibility. This will include a whole-system approach, demonstrated through a socio-ecological model of how responsibility in health may be shared (figure 4, p.71). In this discussion, I will include the challenges related to political and structural responsibility in a post-modern and neoliberalist ideology. Finally, the concept of self in self-management will be debated, as well as the possibility of a more collective understanding of self-management as a potential development of the healthcare services in HLCs.

The consequences of a one-sided emphasis on personal responsibility for health in contemporary society is discussed above (5.1.1). The literature often highlights health behaviour change at an individual level, focusing on biomedical models of behaviour change and rarely at a professional or societal level [28, 173, 176]. According to the biomedical perspective, overweight and obesity is essentially the result of an energy imbalance

driven by individual behaviour. Self-management outcomes tend to focus on biomedical indicators selected and monitored by professionals, rather than on outcomes important to the patient [258]. The common approaches to obesity treatment have been attempts to change individual behaviour by changing energy imbalances, primarily through health education [15]. This approach has had significant implications for obesity treatment and prevention, influencing clinical practice and government policy in spite of the evidence against its effectiveness at the population level [173].

The recommendation to establish HLCs in all municipalities is one effort to help people to change their lifestyles [13]. In theory, HLCs and the government guidelines view overweight and obesity as a complex problem with multiple interconnected variables [5]. However, in practice, the lifestyle interventions offered focus on a biomedical view, where the service users are offered healthy diet courses and exercise sessions aimed at helping the individual change their behaviour [13]. A pragmatic RCT study of HLCs does not support a strong emphasis on behaviour change at an individual level as a way of targeting general health and risk reduction at a population level [259]. Adherence to programmes is poor (high drop-out rates) [58, 62] and patients in lifestyle interventions experience a lack of long-term success [17, 29, 172, 173]. Because of the complex systems that affect obesity [15, 17, 29], several studies suggest a whole-system approach to address the multiple factors and levels [17, 173, 176].

A unilateral focus on personal responsibility was suggested to inflict more guilt and self-blame (Paper I). The HPs in this study are aware of their professional responsibility and assign responsibility to the service users for the purpose of sharing responsibility (Paper III). Sharing responsibility and focusing on wellbeing, better perceived health and management of everyday tasks, instead of weight and BMI, are suggested in Paper III to reduce the pressure on weight loss and the burden of guilt, shame and stigma (Papers I and III). An important

therapeutic mechanism in beneficial SMS and user involvement may lie in the possibility of sharing responsibility between service users and HPs (Paper III).

It may also be possible to go beyond personal and intrapersonal sharing of responsibility and examine the structural and political responsibility in society. Socio-ecological models, founded in Bronfenbrenner's socio-ecological theory [81], are suggested to guide health promotion efforts towards structural, environmental and political changes [173, 177-180]. The socio-ecological model considers economic, cultural, social and political determinants and presents individual obesity as, at least partially, influenced by forces external to the individual [5, 177, 179]. Biomedical, socio-ecological and complex models all contribute to our understanding of obesity and are needed to inform our efforts to intervene [5, 173, 176]. Applying a socio-ecological model (inspired by Bronfenbrenner [81, 260] and Stokols [180]) to better understand the concept of responsibility and sharing responsibility (including a deeper understanding of the service users' needs, beneficial SMS and user involvement) are illustrated in figure 4:

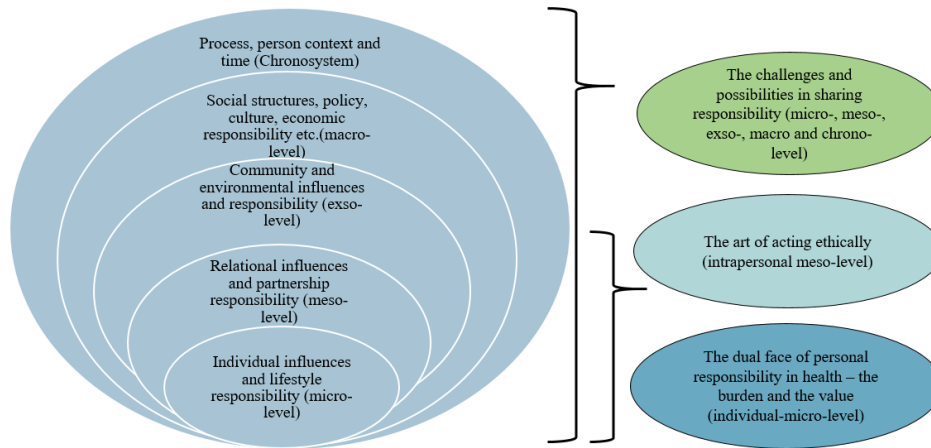


Figure 4. A socio-ecological model of responsibility in health

Responsibility for health promotion and preventing and managing illness lies in many levels; from individual responsibility (personal responsibility for a healthy lifestyle), relational and partnership responsibility (professional responsibility and HPs providing support and care), to society's responsibility (a healthy environment and structural responsibility for policy).

Both the service users and the HPs (Papers II and III) perceive the need for long-term follow-up (table 2, p.40). On both the micro- and meso-level, there will be possibilities of sharing responsibility and developing relationships and interventions to safeguard long-term follow-up, with easily accessible contact with HPs in HLCs if necessary (Papers II and III). However, there must be a greater focus on follow-up programmes, where service users know they will be met in a friendly and welcoming way and that no one will judge or tell them to take more responsibility in the long-term. Therefore, the chronosystem [260], considering the process of lifestyle change, time and context, is essential in a holistic understanding.

Upstream prevention is a concept from McKinlay [261] that focuses on actions aimed at reducing the magnitude of inequality by recalibrating systems to move further up etiologic pathways, finding the ‘causes of the causes’ [261]. It is important to strengthen prevention services, deliver care in novel ways, honour grassroots wisdom and broaden care to include health determinants [262]. The NCD strategies [9, 10], the European Policy for Health and Wellbeing [88], WHO’s European Healthy Cities Network [263] and the Norwegian White Paper [5] emphasise a whole system approach. This includes creating a society that promotes health and decreases health inequalities for the whole population, in accordance with the Ottawa Charter’s strategies for public health and health promotion [70]. The Norwegian government is given the responsibility for public health work nationally, to identify challenges and factors affecting health, to plan and design national measures, to assist the municipal sector and to facilitate a systematic and knowledge-based public health work [5, 7]. The White Paper [5] states that there must be a balance between the community’s responsibility for the population’s health and the individual’s responsibility for their own health. As long as the systematic differences in health are related to inequalities in society’s distribution of resources, it will be the community’s responsibility to influence this distribution in a more justifiable direction. This can include making healthy choices easier and more attractive and unhealthy choices more difficult [5]. Considering the challenges related to the government’s efforts and decisions to increase taxes on sugary food and beverages, and being forced to go back on the agreements [264], may explain some of the difficulties in making unhealthy choices more difficult. In the end, service users are made responsible for their choices. Policy makers believe that changing environmental and social policy is of the utmost importance; however, they consider it unlikely that such politics would be implemented without political will and popular support [231].

Postmodern and contemporary societies with a neoliberalist ideology and new public management as a management ideology, emphasise an individual's free choice. The core of liberalism implies that individuals take precedence over society and collective ideas [265]. In Scandinavian welfare states, the welfare ideology of communal values, solidarity and equality have become increasingly powerless and fragmented at the cost of capitalism and individualism. In this ideology, where people are self-interested, competitive and independent individuals, the balance between individual and community duties and responsibilities is subtle [227]. Neoliberal values are evident in the health discourse of consumer choice and empowerment and are shaping the policy of self-management in chronic diseases [266, 267]. This agenda is underpinned by respect for patients and their self-determination, a construction of the patients as empowered, able to participate, autonomous and capable of making choices that some have argued resonates with the neoliberal philosophy [95]. Patients are held responsible for enforced choice and 'responsibilisation' may be the hidden component of patient involvement [95].

By encouraging patients to self-manage, person-centred care has shifted the responsibility for health onto the individual and away from the government [95, 268]. This may result in politics, social structures and organisations that evade or disclaim responsibility [95]. This can also influence the responsibility for health and may inflict a greater burden on people not managing the health authorities' guidelines for a healthy lifestyle (Paper I). It may also affect the common view of laypersons and health professionals, that the individual is responsible for their own life and health, and maintain weight stigma, blame and self-blame. This will make it difficult to address weight stigmatisation of people with overweight and obesity on a societal and cultural level. However, it will be important that HPs continue to reflect upon human values, ethical responsibility and shared responsibility, as this shows the importance of increasing people's ability to assume personal responsibility (Paper I-

III). In Gidden's modernity, more and more actions occur in faceless relationships (internet, banking, commerce, apps for self-help) [269]. Face-to-face relationships in HLCs are important (Paper I-III) and maybe it is the human, close relationships with 'fellow strangers' that are satisfied within HLCs. Therefore, it can be problematic to transform HLCs to a more individualistic 'arena of independence', when there is no need for everyone to be independent (as people need people).

This neoliberal ideology may have some similarity to the concept of governmentality and liberal governmentality [95]. Governmentality is an organised practice through which individuals are governed and is a calculated means of directing people's behaviours and actions [228]. In a neoliberal government, power is delegated to the individuals; with this, responsibility is also transferred to the individual and self-governing capabilities and autonomy is highlighted [95, 228]. Steering towards increased user involvement (individual choice) and empowerment, this may also increase the risk of the government's disclaimer [95]. Are people reasonable and capable of making healthy choices all the time? The prevalence of overweight and obesity, its growing rates and the subsequent number of NCDs [1] gives reason to believe a resistance to established prevention and treatment efforts [31] and that people find it difficult to assume personal responsibility for a healthy lifestyle (Paper I and II). Self-governing capabilities [228] are similar to the understanding of self-management, independence and the individual's ability manage treatments, as well as lifestyle change [114, 118].

One can question the ideal view of self-management and independent individuals. Modern society and policy, especially neoliberalism disseminating in more countries, highlight the free and independent individual and, therefore, personal responsibility. It has never been more important that patients willingly and skilfully take on daily self-management responsibility [270]. Too much focus on self-management in a neoliberalist society may result in a greater burden for service users and patients because they are not 'good' self-managers [229]. The

concept of a good self-manager highlights the moral dimension of self-management. A good self-manager is an individual who is re-moralised, takes responsibility for their health, is knowledgeable and uses this to manage risks, and is active in using information to make informed decisions regarding health and social wellbeing. Ellis et al. suggest moving away from the neoliberal discourse and towards truly valuing patient choice without moral judgement and critique [229]. It appears HPs in HLCs in this study believed a non-judgemental attitude and dialogue was essential to get in position to help, and reduce the burden of moral personal responsibility (Papers II and III).

Greenhalg [66] suggests that self-management programmes based on the expert patient model (e.g. individual responsibility) are still the preferred policy in many countries and that the evidence base for their efficacy is weak. A more holistic model, considering a person's family, friends, social and political contexts, is needed [66]. This challenges the concept of self-management in weight management and lifestyle changes and the understanding of responsibility. Therefore, self-management, responsibility and SMS for lifestyle change is suggested to have a great potential if and when responsibility is shared between HPs, social networks, community and policy (Papers II and III). The results in all three papers (I to III) show that service users need support from significant others; however, not all people have available support. People need people – they need to be seen, listened to and have confirmation – people need to be needed and to mean something to others.

This is also one of the mechanisms in SMS in HLCs, the emphasis of social support and fellowship in group sessions and the joy and meaningfulness of participating in these groups (Papers II and III). This is not, of course, the whole answer to overweight and obesity prevention and treatment; however, it is an essential part of self-management. This makes the 'self' in self-management contradictory, due to people being more or less dependent on others for their wellbeing, meaningfulness and support. The term 'self', with regard to chronic diseases, should be used

more cautiously and critically [270]. In chronic disease management, self-management is problematic and contradictory [270] because family, community and societal conditions influence the choices people make or can make [5, 70, 270]. Family-based interventions in chronic illness have shown positive results for patients with chronic conditions [271]. In diabetes 2 prevention, having a family and being part of a social network could improve outcome of lifestyle intervention programmes [272]. Family-based interventions targeting childhood obesity are successful in producing weight loss in the short and long term [273]. However, there are no studies found on interventions including family and friends in adults' lifestyle changes in overweight and obesity; this may be a promising intervention given the importance of relational and social support in managing lifestyle change, as suggested in Paper II.

The results in all three Papers (I to III) indicate and describe the importance of social support and networks for lifestyle change. This is in line with the health promotion literature, which emphasises contextual determinants (where people 'learn, work, play and love' [70]) and a socio-ecological approach and understanding of health behaviour change [176-180]. Healthy living is not always an individualised process of correct choices that result in improved health and independence. The results show that service users need emotional and self-worth support from significant others (Paper II), where responsibility is shared (e.g. at the individual and meso-level) (Paper III). Vassilev et al. [230] emphasise the important role social networks play in self-management and suggest a more collective understanding of self-management and collective-efficacy, rather than self-efficacy. This view may affect the ability of key players to work in partnership. Interventions could be more productively designed to maximise the possibilities for social engagement [230]. The findings in Papers I to III indicate a need for prolonged support and follow-up and a more collective approach, engaging families and friends in the interventions was suggested (Paper II). Another study found a restricted capacity of primary care to provide

SMS, and building a system capable of engaging social network capacity to mobilise resources for SMS from the broader community was suggested [274]. The call for a more collective form of responsibility was also identified in this study (Papers I to III). This is also one of the intentions described in the HLC guidelines [13]. Some of the physical activity groups established in HLCs, as described by some of this study's service users and HPs (Papers II and III), continue to meet once or twice a week and network groups are established on social media, such as Facebook and Messenger (Paper II).

In line with Askheim [90], the key to individual empowerment and better self-management is to see the relationship between the service users' challenges and life situations and the social and structural conditions. A one-sided emphasis on individual aspects may indicate that the political, structural and collective aspects are not considered in the empowerment process [90]. Less focus on biomedical models (at the level of individuals) and a greater focus on socio-ecological models (including political, environmental, cultural and economic determinants) may be a way to share responsibility for health promotion, prevention and treatment in community healthcare and HLCs. The purpose of sharing responsibility should not deprive the individual need to take responsibility or the experience of pride in taking responsibility. Sharing responsibility may be an opportunity to better succeed in health promotion and to improve the effects of interventions on public health. Thus, building social relationships and networks seems to be essential for lifestyle change. Measures must, therefore, be more widely applied at various levels in the socio-ecological system.

5.2 Methodological considerations

Due to the lack of research in Norwegian HLCs at the start of this project in 2015, I chose a qualitative, explorative study grounded in hermeneutic methodology and tradition. This is because qualitative methods can be useful when studying human characteristics, when exploring

participants' experiences, perceptions, values and needs, or when searching for deeper understanding of phenomena [181-183, 187]. Studies from Sagsveen et al., published in 2018 [64, 65], explored user involvement in HLCs. If these studies had been available earlier in my research process, the research questions may have been asked differently or more precisely. However, finding newly published studies of user involvement is also a confirmation of other researchers' views of the need for more knowledge and a deeper understanding of this phenomenon in Norwegian primary care HLCs.

Individual in-depth interviews and focus group interviews were chosen as they are appropriate data-collecting methods in qualitative research [187, 209, 210]. This is in line with the social constructivism paradigm adopted in this study and in the co-creation of reality through language and dialogue [185, 187].

Individual interviews with the service users were used in sub-studies 1 and 2, due to the private and sensitive aspects of the topics of overweight and obesity and the users' efforts to seek help. Individual in-depth interviews on sensitive topics are preferable to focus group interviews, to protect and safeguard the participants and I assumed that it would be easier for the service users to speak openly. My role was to create a dialogue and help users elaborate on the topics and phenomena under study. The service users spoke openly about their challenges, desires and experiences. This may not have occurred in a group environment where the service users did not know each other.

Focus group interviews were chosen to collect data from the HPs. For the HPs in HLCs, the topic and phenomenon under exploration (beneficial SMS and user involvement for persons afflicted by overweight and obesity) is not a private or personal issue in the same way as for the service users. Focus group interviews were chosen to reveal different views, create discussion and use the group interactions to produce data. My role was to moderate the discussion, ask questions,

follow up answers and reflections, and ensure that all HPs were involved. The HPs appreciated the opportunity to discuss their practice with other HPs in HLCs, which for them became an arena of learning. A multi-stage focus group interview was planned. With respect for the HPs' time and due to difficulties in finding a time that suited all participants, this was changed to a one-time focus group interview. The level of discussion, reflection and amount of data in each focus group was considered sufficient to respond to the aim and answer the research questions.

5.2.1 Strengths and limitations

Strengths

I was involved in all parts of the study, created the design, conducted the recruitment and data collection and undertook the initial coding and categorisation in the analysis process. This means that I have a significant knowledge of the data and understand the study as a whole.

The analysis was conducted and described as thoroughly as possible through the analytical steps of qualitative content analysis [211] and thematic analysis [212] in the method section (3.4.1 and 3.4.2). The coherent and systematic use of qualitative content analysis (Papers I and II) and thematic analysis (Paper III) strengthen this study.

All three papers and the synthesis of the findings in section 5.1 are strengthened by the use of inductive coding and categorisation of empirical data [215, 216] and by using theory (deductive) [215-217] in further processes of the analysis. The demonstration of the analysis processes as a hermeneutical spiral (in figure 2, p.38 and figure 3, p.58), including the hermeneutical interpretation, the researcher's preunderstanding [189, 193] and the abductive strategy [185, 201, 204, 205] used to develop themes and main-themes in the latter part of the interpretation process, may increase the understanding of the analysis and the subsequent results.

After searching the comprehensive literature on SMS in chronic conditions, I found that very few studies have focused on SMS related to persons afflicted by overweight or obesity. Therefore, this study revealed new and relevant knowledge, especially for use in Norwegian HLCs, as well as for international interventions and research. This study provides a deeper understanding of both SMS and user involvement in lifestyle changes, particularly for persons with overweight or obesity, due to the emphasis on a more interpretative analysis method (a hermeneutic spiral and abductive approach) rather than a more descriptive phenomenological approach.

The strength of sub-studies 1 and 2 lies in the semi-structured in-depth interviews. The intention behind using a semi-structured interview guide with open questions (Paper I and II) was to reveal experiences and perceptions from the service users' perspective. Open questions allowed for elaboration of the service users' understanding. The intention was to interpret what the service users were searching for and what beneficial SMS and user involvement meant to them. Each interview lasted between 60 to 130 minutes, providing the users with opportunities to elaborate on the questions and the researcher to follow up the responses. The variety in age, gender and socio-economic status strengthened the utility and transferability of the findings, which are enhanced by the rich descriptions of the context, the inclusion of service users from five different HLCs in Western Norway (both rural and urban municipalities), the data collection and analysis, and the inclusion of quotations from a number of participants. Information power [207] guided the data collection to ensure a variety of perceptions.

The strength in sub-study 3 lies in the use of focus group interviews. This was a plausible method for exploring HPs' values and reflections. A topic guide was used to initiate the discussion. The HPs played an active part in the discussions, in a highly reflective manner. The familiarity between HPs from previous networking and working together made most of them feel comfortable, with everyone taking the opportunity to speak.

This reflects the benefits of choosing a focus group to collect data from the HPs' perspective. It was also a strength that the HPs represented both rural and urban municipalities and reflected multiple realities and different occupational backgrounds and practices.

However, after seeing the three sub-studies together and synthesising the findings of the three papers, it appears the analysis process and results of Paper I, especially regarding the capability of personal responsibility, have influenced the analysis process and results in Papers II and III. The results in Paper II then affected the analysis process and results in Paper III. This is natural and logical, as I asked the same questions of the service users and HPs in relation to their perceptions of SMS and user involvement. However, in addition to similarities in the importance of acknowledgement and prolonged and individualised self-worth support, the study concentrating on HPs (Paper III) identified the importance of professional ethical responsibility.

Limitations

Some methodological limitations should be addressed. In Papers I and II, the recruitment of service users could have been influenced by the HPs' knowledge of those who were especially satisfied with the lifestyle intervention. The service users may have also been influenced by the ongoing process of change and participation in both dietary and activity interventions over an extended period of time prior to the interviews. The self-selection of volunteers to participate and the service users' opportunity to participate in HLC interventions in the daytime (due to their life and employment situation) may have influenced their descriptions of user involvement and satisfaction, such as everyday structure and social and emotional support. We have no data on those who declined to take part in the study or those who were prevented from participating for various reasons. However, in Paper II, the research question concerned perceptions of beneficial SMS (and not useless support and barriers to participation). The recruited service users participating in this study were, therefore, suitable [182, 207].

In Paper III, one possible limitation might be the gender balance, as there was only one male participant. However, this reflects the general gender balance in HLCs, as most HLCs have a majority of female employees. Another limitation that should also be considered concerns the composition of the focus groups [209]. The participants in one of the groups had experience of inter-municipal collaboration over a period of several years, while the participants in the other group had only met a few times and had less experience working in a HLC. A potential limitation lies in the high degree of consensus, although none of the participants appeared to be reticent about expressing their opinions and perceptions.

5.2.2 Trustworthiness for papers I to III

Trustworthiness concerns the need to present arguments that support the most probable interpretation [213]. Lincoln and Guba [184] have made a clear criteria for trustworthiness in qualitative inquiry, which is applicable to a Gadamerian research process [193]. This criteria is to clearly document various decisions made during the research process and different stages of analysis. Increasing trustworthiness in qualitative research involves addressing aspects of credibility, dependability, transferability and confirmability [184].

Credibility can be established by ensuring that the perspectives of participants are represented; quotations from the participants can help the reader to make a judgement on this matter [184]. To facilitate the interpretation and analysis of data, direct quotations to strengthen credibility and represent the participants' perspectives were included in the papers (I to III). All three papers used quotations in the results sections, to bring out the voices of the participants in this study and to illustrate the themes.

Dependability holds judgement about the stability of the study findings, based on the potential for replication [184]. The categories and themes found in the analysis process showed a high degree of similarity between the participants' perceptions and understandings. The methods used in recruitment, data collection and the context and analysis processes were described in detail in all papers.

Confirmability can be managed by returning to the participants at all stages of the research process. Objectivity in hermeneutic research occurs by faithfully representing the text, although this is an ideal that cannot be achieved entirely, as readers will interpret research findings from their own horizons [184]. Consensus about the meaning of the statements will be in line with the concept of confirmability. Gadamer explains there is no statement that is universally true, because no statement can escape the complexities of interpretation. Understanding can only be achieved by consensus on the whole and the parts of the text, this is only through one's preunderstanding that understanding is possible [189, 193]. The significance of the preunderstanding and theoretical framework has been clarified and implies awareness in the whole process of research and in the interpretation of data, as discussed in paragraph 3.1.4. Discussion of the sub-themes and themes between the authors on several occasions over a period of time aimed to find the most appropriate interpretation and increase the confirmability of the findings. Confirmability is predicted by common characteristics, such as language, culture and time [193]; in this study, the participants live in the same culture with the same language and the data collection was limited to a five month period in 2017.

Transferability, whether the findings from the study can be transferred to other settings or groups, is another aspect of trustworthiness in qualitative research [184]. One mechanism for promoting transferability is the amount of information qualitative researchers provide about the study context. The researcher can provide descriptions necessary to make a transfer of the research conclusion about whether transfer can be

contemplated as a possibility, and relevant to other situations [184]. In this study, HLCs as the study context have been described comprehensively, including content and duration of the interventions. This study was based on a relatively small group of service users and HPs in one part of Norway. The familiarity between the HPs, their inter-municipal collaboration and network meetings may have influenced their attitudes and understanding of SMS and user involvement. Participants from other parts of Norway and from larger municipalities may have revealed other results.

5.2.3 Ethical considerations and reflexivity

In this study, there are several ethical aspects. Undertaking research on stigmatised individuals (e.g. the experiences of obese persons) in vulnerable situations requires particular care [275], presenting the researcher with unique opportunities and dilemmas. An interview is a moral enterprise, according to Kvale and Brinkmann [187]. Ethical issues typically arise in interview research because of the asymmetrical power relationship between interviewer and respondent, where researchers are usually positioned as the relatively more powerful side. Ethical problems arise particularly because of the complexities of researching private lives and placing accounts in the public arena [187]. The knowledge produced by such research depends on the social relationship of the interviewer and interviewee, which rests on the interviewer's ability to create a stage where the subject is free and safe to talk of private events recorded for later public use. This, again, requires a delicate balance between the interviewer's concern for pursuing interesting knowledge and ethical respect for the integrity of the interview subject. It is important not to offend subjects, while at the same time the researcher has to give something of themselves to merit an open response [187]. This was emphasised and described in sections 3.3.2 and 3.3.3.

In this study, the interview could have been an unpleasant reminder that the service user is not living a healthy life in line with health authority guidelines and some may feel that they impose an additional burden to the society and healthcare services [27, 28, 42, 235], which can cause distress. If any of the participants showed any discomfort when asked a question or did not respond, this was not followed up with the same questions. I respected the participants' privacy and restraint in some areas, by noting the answers they gave and their body language. This was not a problem and most of the participants were more open and outspoken than expected.

Guillemin and Gillam [206] emphasise the respect of people and that respect for the dignity and wellbeing of people takes precedence over the expected benefits to knowledge. They identify the interview as an unnatural social situation, a polite interrogation of the participant that is not aimed solely at benefiting them, and that this practice is ethically questionable [206]. Avoiding causing harm to participants is an absolute and basic consideration [222]. Guillemin and Gillam suggest we need a process and a way of thinking that will actually lead to ethical research practice, which is where they see an important role for reflexivity. Reflexivity in research is a process of critical reflection, both on the kind of knowledge produced from research and how that knowledge is generated [186, 187, 206]. The knowledge produced in this study concerns experiential knowledge, which may contribute to a deeper understanding of service users' needs, beneficial SMS and user involvement. Implementing this knowledge in practice may benefit service users and HPs

The researcher's reflexivity is important in qualitative research and concerns the capacity to reflect on one's role and position, subject of interest, methods and analyses throughout the entire research process [182, 183, 206]. In this study, my role as researcher has been critically reflected upon throughout the entire process. Throughout the data collection, interviews and analysis, I had to be aware of my role as a

researcher, rather than as a public health nurse, and my responsibility to act in respect of the participants (HPs and service users), create a safe environment and ensure confidentiality. In line with the hermeneutic approach employed in this study, there is always a possibility of ambiguity and different interpretations of the meaning of the text [182, 187]. The analysis and interpretation were influenced by my own and my co-authors' preunderstanding, which must be considered when interpreting the participants' reality. My theoretical background and clinical experience (as a public health nurse) have been described in all the papers. This background provided a preunderstanding and experienced-based knowledge of the research phenomenon, in addition to valuable insights concerning lifestyle change and social stigma and the understanding of overweight and obesity leading to problems with self-esteem, weight stigma and psychosocial health. This knowledge and preunderstanding can also be seen as a methodological strength in this research process. However, to minimise potential bias, the supervisors and co-authors of the three papers read all the transcribed interviews. The researchers' various disciplinary backgrounds and clinical experiences, as a psychiatric nurse, a public health nurse, from patient education and intensive care, enriched the analysis and interpretation, increasing the trustworthiness.

6 Conclusion

This study has explored service users' needs, beneficial SMS and the significance of user involvement for persons afflicted by overweight or obesity attending lifestyle interventions in HLCs, from both service users' and HPs' perspective. A synthesis of the findings in the three papers can provide a deeper understanding of service users' needs, beneficial SMS and user involvement by means of three new themes: *The dual faces of personal responsibility in health – the burden and the value*, *The art of acting ethically* and *The challenges and possibilities in sharing responsibility*.

The first theme, *The dual faces of responsibility in health – the burden and the value*, is based on the service users' search for dignity and the emotional alternation between shame, guilt and pride. This duality can be understood as living with overweight and obesity as a burden of shame and weight stigma that influence the users' capability to assume personal responsibility. The value can be understood as a perception of dignity, pride, active involvement and assuming responsibility.

The second theme, *The art of acting ethically*, seems to be an integrated attitude of beneficence in HPs' practice and is demonstrated by their capability to engage in a person-centred approach and to see the service users' existential needs in a vulnerable situation. HPs meet the service users with generosity and acknowledgement and SMS tailored to the service users' needs. The SMS (including self-worth support) that HPs provide is based on ethical awareness, a non-judgemental attitude, dialogue and shared responsibility. This may help the service users to increase their self-efficacy, improve their self-management and regain their integrity, self-respect and dignity. Through the HPs' way of meeting and involving service users in interventions and lifestyle change processes, through their 'ethical acting', we get an understanding of how

Conclusion

HPs involve service users and what user involvement implies for the HPs in HLCs.

The last theme, *The challenges and possibilities in sharing responsibility*, is built on the findings that HPs treat service users as equal partners in a collaborative partnership based on shared responsibility. One challenge is that, for several of the service users in this study, lifestyle changes required long-term follow-up. Another challenge is that lifestyle changes and self-management are linked with relational, emotional and social support and that significant others are important for individual empowerment. Not all service users have such support from others. The burden of too much personal responsibility in an obesity-promoting environment and society may also challenge the service users' self-management. In addition, there are serious challenges related to sharing responsibility at a structural and political level, which requires political will. An important therapeutic mechanism in beneficial SMS and user involvement may lie in the possibility of sharing responsibility, rather than a unilateral focus on personal responsibility (as supported in a neoliberal society). The HPs' way of being and sharing relational responsibility (as long as the service users need this), may reduce the burden of personal responsibility, shame, guilt and weight stigma. This may also increase self-efficacy and help service users live a healthier life and experience a better quality of life and wellbeing. Accordingly, there is a possibility of sharing responsibility at a relational level and to highlight collective approaches from a socio-ecological perspective.

7 Implications for clinical practice

Effective SMS interventions are critical for qualitative healthcare services. Through this explorative, hermeneutical and abductive study, the findings contribute to a deeper understanding of service users' needs, user involvement and SMS in lifestyle change and may have significance for HPs' provision of SMS in clinical practice.

The findings show that, to be in a position to help, HPs need to be interested, sensitive and take the time to listen. It will be important for the service users' self-respect that they actively engage in any intervention and in the lifestyle change process. HPs focusing on the service users' resources and management, and continuing to create a safe environment in HLCs with the emphasis on dialogue, equal partnership and a non-judgemental attitude and atmosphere, may provide opportunities for individual empowerment and lifestyle change. HPs in HLCs have something to teach us about ethical acting and helping persons who are struggling with overweight or obesity and in a vulnerable situation to change their lifestyle and regain dignity.

HPs need to address self-conscious feelings like guilt, shame and internalised stigma, as well as responsibilities related to dilemmas about a right or wrong lifestyle, as this is often the cause of the problem and leads to avoidance of responsibility. The findings in this study, suggesting that service users regain dignity and self-respect through their participation in lifestyle interventions in HLCs, is interesting. The main object of HLCs is to help, facilitate and empower service users towards better self-management. HPs in this study highlighted their commitments to ethical and relational responsibility, beneficence and raising service users' self-efficacy, which seems to reduce feelings of shame and weight stigma. This study shows that Norwegian HLCs seem to have a great potential to support self-management in lifestyle change for persons afflicted by overweight or obesity. However, the SMS and user

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involvement in lifestyle interventions need to focus on shared responsibility in a collaborative and equal partnership, rather than personal responsibility.

The study shows that most service users need emotional and social support and long-term follow-up. Initiating and motivating participants to participate in HLC interventions together with a friend, family or a partner may lead to more lasting lifestyle changes. A collectivist perspective can integrate the importance of significant others' involvement and shared responsibility. Providing long-term support will strengthen the ability of HLCs to provide beneficial SMS to persons afflicted by overweight or obesity. This indicates that it will be of importance to engage in a holistic approach, such as a socio-ecological model of lifestyle intervention, rather than biomedical approaches, which often emphasise weight and BMI outcomes, what to eat and the amount of physical activity.

8 Implications for further research

The findings in this study suggest that it may be time to highlight the need for SMS and user involvement to focus on shared responsibility in partnership rather than on personal responsibility. More research is required to explore the conditions for such practice, including intervention strategies to reduce weight stigma. It would be interesting to explore the effects of self-management interventions on experiences of shame, guilt and weight stigma, as well as experiences of pride.

How HPs in HLCs manage to prioritise time and their challenges and needs related to the organisation of lifestyle interventions requires further investigation. Cooperation between HLCs and the important role of GPs in overweight and obesity treatment need to be investigated. Further research should also focus on the high drop-out rates and explore reasons for drop-outs.

If self-management were the desired outcome, some of the solutions that HLC can provide would be to focus on long-term self-care strategies, including supportive design and practice for interventions to promote self-esteem, self-respect and dignity. In addition, cost-effective follow-up programmes, maybe over years, should be developed. Further studies should also focus on methods to improve these programmes with regard to social support, such as the recruitment of service users with friends or families to safeguard the necessary long-term social support.

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