

Intensive care nurses' attitudes and
behavioural intentions toward obese
intensive care patients

Nastasja Robstad

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behavioural intentions toward obese
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Abstract

Background: Admission of obese patients with complex health care needs to intensive care units is increasing. Caring for obese critically ill patients can be challenging for qualified intensive care nurses because of the patients' weight, critical situation and physical challenges. Previous studies have demonstrated that some healthcare professionals hold negative attitudes toward obese patients. Obese intensive care patients may experience more stress than normal weight patients; therefore, intensive care nurses' attitudes and the way the nurses address patient care may be important. Despite a range of studies revealing that healthcare professionals hold anti-fat attitudes toward obese patients, little is known about qualified intensive care nurses' implicit and explicit attitudes toward obese intensive care patients and if such attitudes are associated with behavioural intentions. Furthermore, there is a current gap in knowledge about qualified intensive care nurses' experiences of caring for obese patients in intensive care units.

Aims: The overarching aim of this thesis was to understand ICU nurses' experiences in caring for obese ICU patients, to examine the nurses' implicit and explicit attitudes toward this group of patients and to investigate if ICU nurses' attitudes are associated with their behavioural intentions.

Designs, methods and samples: The overall design of the thesis was a 'sequential qualitative → quantitative' (QUAL → quan) multimethod design.

Study I: Semi-structured individual interviews were conducted with 13 qualified intensive care nurses working at intensive care units of two hospitals in Norway. The interviews were analysed according to a Gadamerian-inspired research method.

Study II: A cross-sectional pilot study was conducted to design, translate and test research instruments for measuring qualified intensive care nurses' implicit and explicit attitudes, as well as their behavioural intentions toward obese ICU patients. The study consisted of Implicit Association tests, the Anti-fat Attitudes questionnaire, explicit bias scales, vignettes measuring behavioural intentions and demographic questions and was completed by 30 qualified intensive care nurses from one ICU in Norway.

Study III: A cross-sectional survey consisting of Implicit Associations test, the Anti-fat Attitudes questionnaire, explicit bias scales, vignettes measuring behavioural intentions and demographic questions was completed by 159 qualified intensive care nurses recruited from 16 intensive care units at 15 Norwegian hospitals and from a Facebook group of intensive care nurses.

Main results: Qualified intensive care nurses experienced it as emotionally demanding caring for obese patients owing to their vulnerability, dissimilarity and physical challenges compared to normal weight patients. Simultaneously, they had implicit preferences for thin over thick people, and believed thick people were lazier, and having less willpower and being worse than thin people. The nurses endeavoured to provide good and equal care to all patients and to help

the obese patients immediately. Behavioural intentions were not associated with any attitudes or

stereotypes. The instruments were reliable, valid and suitable tools to measure qualified intensive care nurses' attitudes and behavioural intention.

Conclusions: This study provides new information about anti-fat attitudes and behavioural intentions among qualified intensive care nurses toward vulnerable obese intensive care patients. Despite that ICU nurses are specially trained, it appears that these nurses share the same attitudes toward obese persons as other healthcare professionals and the society in general. However, their attitudes were not associated with their behavioural intentions. These results should be acknowledged by policy makers, clinical practitioners and educators to secure optimal care for obese intensive care patients.

Sammendrag

Bakgrunn: Det er et økende antall intensivpasienter med komplekse helsebehov som innlegges på intensivavdelinger. Pleie av kritisk syke pasienter med fedme kan være utfordrende for intensivsykepleiere på grunn av pasientens vekt, kritiske situasjon og fysiske utfordringer. Tidligere studier viser at en del helsepersonell har negative holdninger til pasienter med fedme. Intensivpasienter med fedme kan oppleve mer stress enn pasienter med normal vekt, og intensivsykepleieres holdninger og den måten de utfører pleie på kan derfor være viktig. Til tross for flere studier som viser at helsepersonell har anti-fedme holdninger til pasienter med fedme, vet man lite om intensivsykepleieres implisitte og eksplisitte holdninger til intensivpasienter med fedme, og om slike holdninger er assosiert med deres atferds intensjoner. I tillegg er det et kunnskapshull i forhold til intensivsykepleieres erfaringer i pleie av pasienter med fedme på intensivavdelinger.

Formål: Hovedformålet med denne avhandlingen var å få en dypere forståelse for intensivsykepleieres erfaringer med pleie av intensivpasienter med fedme, å undersøke intensivsykepleieres implisitte og eksplisitte holdninger til intensivpasienter med fedme, samt utforske om deres holdninger er assosiert med deres atferds intensjoner.

Design, metode og utvalg: Denne avhandlingen har et 'sekvensielt kvalitativt → kvantitativt' ('KVAL → kvan') multimetode design.

Studie I: Semistrukturerte individuelle intervju ble utført med 13 intensivsykepleiere ansatt på intensivavdelinger på to sykehus i Norge. Intervjuene ble analysert i forhold til en Gadamer-inspirert metode.

Studie II: En tverrsnitt-pilotstudie ble utført for å designe, oversette og teste forskningsinstrumenter til å måle intensivsykepleieres implisitte og eksplisitte holdninger, i tillegg til deres atferds intensjoner til intensivpasienter med fedme. Studien besto av Implisitte Assosiasjons tester, Anti-fedme holdnings spørreskjema, eksplisitte bias skalaer, vignetter som målte atferds intensjon og demografiske spørsmål. Studien ble utført av tretti intensivsykepleiere ansatt på en intensivavdeling i Norge.

Studie III: En tverrsnittstudie bestående av Implisitte Assosiasjons tester, Anti-fedme holdnings spørreskjema, eksplisitte bias skalaer, vignetter som målte atferds intensjon og demografiske spørsmål ble foretatt av 159 intensivsykepleiere rekruttert fra 16 intensivavdelinger på 15 Norske sykehus og fra en Facebook gruppe av intensivsykepleiere.

Hovedresultat: Intensivsykepleierne erfarte det emosjonelt krevende å pleie pasienter med fedme på grunn av deres sårbarhet, annerledeshet og fysiske utfordringer i forhold til normalvektige pasienter. Samtidig hadde de implisitte preferanser for tynne over tykke personer, og oppfattet tykke personer som mer late, med mindre viljestyrke og dårligere enn tynne personer. Sykepleierne hadde et ønske om å gi god og lik pleie til alle pasienter, og hjelpe pasienter med fedme med det samme. Atferds intensjon var ikke assosiert med holdninger eller

stereotypier. Instrumentene var reliable, valide og egnede verktøy til å måle intensivsykepleieres holdninger og atferds intensjon.

Konklusjon: Denne studien gir ny informasjon om anti-fedme holdninger og atferds intensjon blant intensivsykepleiere i forhold til sårbare intensivpasienter med fedme. Til tross for at disse sykepleierne er spesialutdannede, ser det ut til at de deler de samme holdninger til personer med fedme som annet helsepersonell og samfunnet generelt. Likevel var dere holdninger ikke assosiert med deres atferds intensjon. Disse resultatene burde bli verdsatt av politikere, beslutningstakere, klinisk praksis, og utdannelsesinstitusjoner for å sikre optimal pleie av intensivpasienter med fedme.

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TABLE OF CONTENTS

Abstract	I
Sammendrag	III
Acknowledgement	V
List of papers	X
Abbreviations.....	XI
Figures and tables	XII
Figures:	XII
List of tables:	XII
List of pictures:	XII
1.0 INTRODUCTION	1
2.0 BACKGROUND	3
2.1 Definition of obesity	3
2.2 Prevalence and cost	3
2.3 Causes	4
2.4 Health consequences	5
2.5 The history of attitudes toward obesity	6
2.6 Intensive care	11
2.6.1 ICU nurses	12
2.6.2 ICU patients	13
2.7 Rationale for the thesis	14
3.0 AIMS OF THE THESIS	17
4.0 THEORETICAL FRAMEWORK	19
4.1 The psychology of attitudes	20
4.1.1 Stereotypes	22
4.2 The theory of planned behaviour	23
4.3 Stigma theory	26
5.0 DESIGN, METHODS AND RESULTS	29
5.1 Design	29
5.2 Study I	31
5.2.1 Sample and setting	31
5.2.2 Data collection	31
5.2.3 Data analysis	33
5.2.4 Results	35

5.3 Study II	36
5.3.1 Sample and setting	36
5.3.2 Data collection	36
5.3.3 The order of instruments	47
5.3.4 Translation of instruments	47
5.3.5 Data analysis	50
5.3.6 Quantitative results	53
5.3.7 Qualitative results	56
5.4 Study III	57
5.4.1 Sample and setting	57
5.4.2 Data collection	59
5.4.3 Order of instruments	65
5.4.4 Data analysis	65
5.4.5 Results	66
6.0 SUMMARY OF RESULTS	71
7.0 ETHICS	73
8.0 DISCUSSION OF METHODS	75
8.1 Study design	75
8.2 Sample recruitment and participant attrition	76
8.3 Data collection	79
8.3.1 Demographic questions	79
8.3.2 Individual interviews	79
8.3.3 Focus group interviews	80
8.3.4 The IAT	81
8.3.5 Vignettes	83
8.4 Statistical analyses	86
8.5 Transferability of results	87
8.6 Trustworthiness of qualitative data	88
8.7 Reliability and validity of quantitative data	90
8.8 Researcher’s role	92
8.9 Ethical perspectives	94
9.0 DISCUSSION OF RESULTS	97
9.1 ICU nurses’ implicit and explicit attitudes	97
9.2 Attitudes and behavioural intention	103

9.3 Differences among the ICU nurses	108
10 IMPLICATIONS.....	111
11 CONCLUSIONS	113
REFERENCES.....	115
Appendices.....	141

List of papers

This thesis is based on the following original research papers, which are referred to in the text by their Roman numerals:

- I.** Robstad, N., Söderhamn, U., & Fegran, L. (2018). Intensive care nurses' experiences of caring for obese intensive care patients: A hermeneutic study. *Journal of Clinical Nursing*, 27 (1-2), 386-395. Doi: 10.1111/jocn.13937
- II.** Robstad, N., Siebler, F., Söderhamn, U., Westergren, T., & Fegran, L. (2018). Design and psychometric testing of instruments to measure qualified intensive care nurses' attitudes towards obese intensive care patients. *Research in Nursing and Health*, 41 (6), 525-534. Doi: 10.1002/nur.2191
- III.** Robstad, N., Westergren, T., Siebler, F., Söderhamn, U., & Fegran, L. (2019). Intensive care nurses' implicit and explicit attitudes and their behavioural intentions toward obese intensive care patients. *Journal of Advanced Nursing*. Doi: 10.1111/jan.14205

Abbreviations

BMI	Body mass index
DALY	Disability-adjusted life-year
ICU	Intensive care unit
ICU nurse	Intensive care unit nurse (mostly written in this thesis as intensive care nurse).
ICU patient this	Intensive care unit patient (mostly written in this thesis as intensive care patient).
JSM	Justification-Suppression model
IAT	Implicit Association Test
LOS	Length of stay
Sequential QUAL → quan	Sequential qualitative → quantitative
WHtR	Waist to height ratio
WHR	Waist to hip ratio
WHO	World Health Organization
YLL	Years of life lost

Figures and tables

Figures:

1. Illustration of how attitudes are inferred from an attitude object
2. Schematic depiction of the theory of planned behaviour
3. Learning the concept dimension (Implicit Association test)
4. Learning the attribute dimension (Implicit Association test)
5. Concept-attribute pairing (Implicit Association test)
6. Learning to switch the spatial location of the concepts (Implicit Association test)
7. Concept-attribute pairing (Implicit Association test)
8. An example of the explicit bias scale measuring 'bad versus good'
9. Flowchart showing the number of participants in Study III
10. An example of a practice block from Study III with the target words THICK and THIN
11. Example of a test block with the target words THICK/GOOD and THIN/BAD

List of tables:

1. The International Classification of Obesity
2. Description of the three studies
3. Studies including the implicit association test and explicit questionnaires
4. Stimulus words used in the implicit association test
5. Attitude scores and internal consistency for the implicit and explicit measures and behavioural intention – Study II
6. Spearman's *rho* correlation coefficients between measures
7. Attitude scores and internal consistency for the implicit and explicit measures and behavioural intention – Study III
8. Results from linear regression analyses, including significant explained variance of explicit attitudes and stereotypes and behavioural intention – Study III

List of pictures:

1. The enviable stage, the comical stage and the pitied stage in obese individuals from a dietary book from 1925

1.0 INTRODUCTION

As the prevalence of obesity increases, more obese patients are being admitted to intensive care units (ICUs) (Bajwa, Sehgal, & Bajwa, 2012). Obese ICU patients are critically ill, and compared with normal weight patients, obese ICU patients may be at higher risk of complications from various pathophysiological changes related to their weight and may therefore experience more stress (Selim, Ramar, & Surani, 2016).

Obesity might influence obese patients in various ways: directly as a result of physical changes and diseases related to weight, and indirectly through perceived weight stigma, which is associated with negative physiological and psychological outcomes (Wu & Berry, 2018). It is not uncommon for obese patients to report negative attitudes and disrespectful treatment from healthcare professionals (Amy, Aalborg, Lyons, & Keranen, 2006; Shea & Gagnon, 2015). These negative experiences from care situations include, for example, not being believed, not receiving treatment for their health issues (Merrill & Grassley, 2008) and humiliation from nurses (Creel & Tillman, 2011; Thomas, Hyde, Karunaratne, Herbert, & Komesaroff, 2008). Obese patients may be vulnerable to such attitudes and may react by experiencing stress (Hatzenbuehler, Keyes, & Hasin, 2009), mistrust of the healthcare professional, poorer communication in the interaction with the provider or even feel 'disrespected, inadequate or unwelcome' (Phelan et al., 2015, p. 320). Furthermore, negative attitudes might lead to poorer adherence to the healthcare professionals' recommendations (Phelan et al., 2015), and to avoidance of care (Amy et al., 2006; Drury & Louis, 2002; Mensinger, Tylka, & Calamari, 2018). ICU nurses' attitudes and their behaviours towards these patients in terms of how they provide care, how they communicate and how they empathise may therefore be important for these patients' wellbeing and outcomes.

Attitudes can be explicit or implicit. While explicit attitudes are conscious, implicit attitudes are below the level of awareness (Greenwald & Banaji, 1995). According to several theories, attitudes are linked to behavioural intentions and behaviours (Ajzen, 1991; Fazio, 1990). Explicit attitudes predict controlled behaviour, such as controlled decisions and verbal communications, while implicit attitudes predict more impulsive behaviours and nonverbal communication (Dovidio, Kawakami, & Gaertner, 2002; Friese, Hofmann, & Wänke, 2008).

Despite a range of studies measuring health professionals' attitudes towards obesity, there is a gap in the research on qualified ICU nurses' attitudes toward obese ICU patients. Qualified ICU nurses are highly theoretically and clinically trained in caring for critically ill patients, and they possess extensive knowledge, expertise and specialised skills. It could therefore be assumed that ICU nurses' high level of knowledge could have a positive impact on their attitudes, beliefs and stereotypes compared with other health care professionals. Furthermore, despite several studies investigating obese patients' experiences with weight stigma in health care and theories arguing that attitudes are associated with

behaviours, the association between health professionals' anti-fat attitudes and behaviours have not been extensively investigated.

Therefore, investigating these issues is important to understand the complex picture of attitudes and their impact on caring in the ICU setting. To advance understanding of this sensitive but important topic, this thesis focuses on qualified ICU nurses' attitudes and behavioural intentions toward obese ICU patients.

2.0 BACKGROUND

2.1 Definition of obesity

The World Health Organization (WHO) defines overweight and obesity as ‘abnormal or excessive fat accumulation that may impair health’ (World Health Organization, 2018).

Body mass index (BMI) is a standard method of classifying body weight. BMI is calculated as weight in kilograms divided by the square of height in metres (kg/m^2) and classified as underweight, normal weight, overweight and obesity. Obesity has three subclasses, and class III obesity ($\text{BMI} > 40 \text{ kg}/\text{m}^2$) is commonly referred to as morbid obesity (World Health Organization, 2004) (see Table 1).

The calculation does not distinguish between age, sex, muscle mass, lean tissue or bone, body fat distribution or percentage of body fat and has been criticised accordingly (Burkhauser & Cawley, 2008). Hence, measuring abdominal obesity (waist to height ratio [WHtR]) is more predictive for cardiovascular risk factors, such as hypertension, diabetes type II and dyslipidaemia, than BMI and is therefore recommended (Ashwell, Gunn, & Gibson, 2012; C. M. Y. Lee, Huxley, Wildman, & Woodward, 2008). Nevertheless, using BMI is an inexpensive and non-invasive method of classifying weight.

Table 1. The International Classification of Obesity in Caucasian adults. Derived and modified from World Health Organization, 2018.

Classification	Cut-off BMI (kg/m^2)
Overweight	25.00 - 29.9
Obesity	>30.00
Obesity class I	30.00 - 34.9
Obesity class II	35.00 - 39.9
Obesity class III	>40

BMI are designed for use in a health context, and there is little information about whether BMI cut-offs are important when investigating stigma and attitudes toward obesity (R. Puhl & Brownell, 2003). Not all studies referred to in this thesis have defined overweight and obesity according to BMI. Nevertheless, throughout the thesis, overweight will be referred to as a $\text{BMI} > 25.00\text{--}29.99 \text{ kg}/\text{m}^2$ and obesity as a $\text{BMI} > 30 \text{ kg}/\text{m}^2$, unless otherwise stated.

2.2 Prevalence and cost

The prevalence of overweight and obesity has been described as a global pandemic. According to the World Health Organization (2018) more than 1.9 billion adults (>18 years) were overweight with a BMI over 25 in 2016. Over 650 million of these had a BMI over 30 and were therefore defined as obese (World Health Organization, 2018). Since 1980, the prevalence of overweight has more than doubled worldwide (Obesity Collaborators, 2017). In Norway, the

prevalence of obesity has also increased. According to The North Trøndelag Health Study (The HUNT study), which contains data from three extensive Norwegian epidemiological studies: 1984–1986, 1995–1997 and 2006–2008, and the Tromsø study, 21% of women and 25% of men (aged 40–45 years) were obese in 2006–2008 (B. K. Jacobsen & Aars, 2015; Midthjell et al., 2013).

Overweight and obesity have economic consequences for society. The total social cost related to obesity in Norway, including the costs to health care, loss of production and the burden of the disease was estimated at 68 billion (Norwegian crowns) in 2018. Of the total cost, the highest cost was related to the burden of the disease, which came in at almost 40 billion (Norwegian crowns) (Wasskog, Lind, Myklebust, Stormo, & Skogli, 2019).

2.3 Causes

It is widely acknowledged that body weight is regulated through a balance between energy intake and energy expenditure, and obesity is a result of a surplus of energy intake. Even so, the aetiology of obesity is complex and multifactorial and is also based on genetic, environmental and lifestyle factors (Rojas, Aguirre, Velasco, & Bermúdez, 2013). Furthermore, psychological, social, economic and political factors interact in the development of obesity (Aronne, Nelinson, & Lillo, 2009).

The causes behind obesity can be divided into primary and secondary causes (Apovian et al., 2015). Primary causes are, for example, genetic causes or different types of syndromes as for example Prader-Willi syndrome. Genetic causes are found to have a strong influence on obesity (Bouchard, 2008). For example, this can be seen in several studies that have investigated twins and BMI. A Swedish study investigating twins who were reared apart found that intrapair correlations of BMI were 0.66 for female and 0.70 for male twins (Stunkard, Harris, Pedersen, & McClearn, 1990). In addition, in their study including almost 6000 pairs of twins, Haworth, Plomin, Carnell and Wardle (2008) revealed that BMI and obesity were highly heritable.

The secondary causes for obesity are related to neurologic, endocrine, psychological or drug-induced causes (Apovian et al., 2015). Some examples are brain injuries or brain tumours, Cushing syndrome, depression associated with overeating or bingeing, other eating disorders and drugs such as B-blockers or antipsychotics (Apovian et al., 2015).

Environmental and lifestyle factors also play an important part in the causes of obesity. Lifestyle factors – and thereby food choices – affect an individual's caloric intake. Because of the technological developments over the last decade, processed foods with increased fat, sugar and salt and decreased fibre are now more available and cheaper than more healthy alternatives (Crino, Sacks, Vandevijvere, Swinburn, & Neal, 2015). Another factor is that the food portions and meals rich with sugar and fat at chain restaurants and fast food chains have increased (Matthiessen, Fagt, Biloft-Jensen, Beck, & Ovesen, 2003; Young & Nestle, 2002), and importantly here, individuals eat away from home than they did in the late 1980s (Kant & Graubard, 2004).

2.4 Health consequences

Obesity is a serious public health challenge and is estimated to cause at least 2.8 million death each year (World Health Organization, 2017). High BMI caused 4.9 % of disability-adjusted life (DALY) from any cause of DALYs worldwide in 2015 (Obesity Collaborators, 2017) and 4% of years of life lost (YLL) in 2010 (Lim et al., 2012). In Norway, overweight and obesity were thought to be the cause of 3200 deaths in 2016, and 6.5 % of the entire disease burden was related to increased BMI (Øverland et al., 2018).

There is an extensive body of literature on health risks owing to overweight and obesity (Afshin et al., 2017; Calle, Rodriguez, Walker-Thurmond, & Thun, 2003; Guh et al., 2009). The condition is associated with a variety of medical conditions, such as different types of cancer, cardiovascular diseases, type II diabetes, metabolic syndrome, gallbladder disease, osteoarthritis, asthma and chronic back pain (Afshin et al., 2017; Calle et al., 2003; Guh et al., 2009). Even though many overweight or obese individuals may have good mental health, obesity is also associated with depression (de Wit et al., 2010; Rivenes, Harvey, & Mykletun, 2009). A meta-analysis of 17 cross-sectional studies with over 200,000 participants found a significant association between depression and obesity (de Wit et al., 2010). These results were also seen in a Norwegian study (Rivenes et al., 2009) where the researchers investigated 60,000 individuals from the Norwegian HUNT 2 study; the researchers found that increased waist to hip ratio (WHR) resulted in an increased incidence of depression among both women and men. For men, increased WHR was additionally associated with increased anxiety (Rivenes et al., 2009).

In addition to obesity's direct influence on physical and mental health, experiences of weight stigma are also associated with both physical and psychological negative outcomes (Wu & Berry, 2018). Perceived weight discrimination may lead to physical stress. These stressors may, for example, activate the hypothalamic-pituitary-adrenalin (HPA) axis, releasing the hormone cortisol. Cortisol is an indicator of chronic stress exposure and is associated with, for example, hypertension, insulin resistance and immunosuppression (Rosmond, 2005). Jackson, Kirschbaum and Stetope (2016, p. 2515) found that those who have experienced weight discrimination had a 33% higher concentration of hair cortisol compared with those who had not. In another study, the participants who perceived themselves as heavy experienced sustained cortisol elevation compared with normal weight participants who did not experience weight stigma (Himmelstein, Incollingo Belsky, & Tomiyama, 2015). It has also been found that perceived weight stigmatising was associated with greater biochemical stress with a higher cortisol reactivity, despite the participants' weight status (Schvey, Puhl, & Brownell, 2014; Tomiyama et al., 2014). Other studies have also found that experiencing weight stigmatisation can increase blood pressure (Major, Eliezer, & Rieck, 2012; Rosenthal et al., 2015). Furthermore, weight discrimination is reported to be associated with the inflammatory marker C-reactive protein (CRP) (Sutin, Stephan, Luchetti, & Terracciano, 2014). CRP has been proven to be an indicator of certain diseases, for example, diabetes type 2 (Pradhan, Manson, Rifai, Buring, & Ridker, 2001).

Moreover, research indicates that experiencing weight stigma is associated with psychological outcomes, such as depression (Fettich & Chen, 2012; K. E. Friedman, Ashmore, & Applegate, 2008; Hatzenbuehler et al., 2009; Robinson, Sutin, & Daly, 2017; Wu & Berry, 2018), anxiety (K. E. Friedman et al., 2008; Hatzenbuehler et al., 2009) and lower self-esteem (K. E. Friedman et al., 2008).

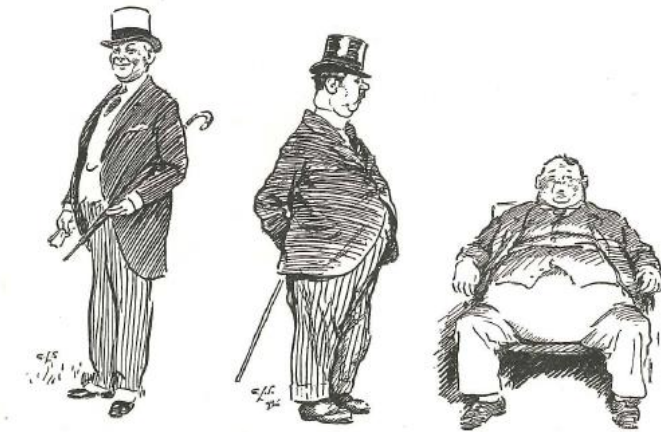
2.5 The history of attitudes toward obesity

The concept of obesity has a long history, and was referred to in the ancient world (Komaroff, 2016). Hippocrates (460 BC–370 BC) defined health as a balance between four humors (Komaroff, 2016). These humors circulated in the body as blood, black bile, yellow bile, and phlegm (Christopoulou-Aletra & Papavramidou, 2004). Disease occurred when there was a deficiency or surplus of one or more of these humors. According to Hippocratic physiology, obesity was a surplus of humor. Although Hippocrates identified health issues related to obesity, the ideal weight during Greek antiquity was neither fat nor thin (Christopoulou-Aletra & Papavramidou, 2004).

In the Middle Ages, a big body expressed power and dominance. In times of food shortages, households with enough food and ‘all-you-can-eat banquets’ were praised. Furthermore, excessive weight was seen as health insurance (Vigarelo, 2013). Scarcity of food throughout history led to the view that being overweight or obese was desirable (Eknoyan, 2006).

Changes in how obesity was perceived occurred with the development of modern Europe (Vigarelo, 2013). From the 18th century, attitudes began to change (Eknoyan, 2006). Being fat became equivalent to having no power (Vigarelo, 2013), and in the 19th century attitudes changed substantially for aesthetic reasons. In the last part of the 19th century, obesity became a stigmatised condition (Eknoyan, 2006). Eknoyan (2006) illustrates these changes with an example from literature. In ‘The Pickwick Papers’ by Charles Dickens (1812–1870), Joe is described as a ‘wonderfully fat boy’, whereas Marty, the hero in the television play ‘Marty’ written by Paddy Chayefski (1923–1981), is called an ‘ugly fat man’ (Eknoyan, 2006, p. 424).

An example of how obesity was perceived in the beginning of the 19th century can be seen in a drawing from an old Danish book about obesity and diet, which was popular at the time (Faber, 1925) (Picture 1). The enviable stage refers to an overweight person, the comical stage refers to obesity and the pitied stage to a person with morbid obesity. In the 19th century and the beginning of the 20th century, being 10–20 kilo overweight was considered healthy. It was a condition that could protect an individual if he/she became sick (Eknoyan, 2006); being overweight was therefore seen as an enviable condition.



Picture 1. The enviable stage, the comical stage and the pitied stage in obese individuals from a dietary book from 1925 (Faber, 1925). Permission to use the drawing received from Gyldendal Forlag, February 19, 2018.

Today, having excessive weight has become a stigmatised condition in Western societies, and there is a large amount of research documenting that obese individuals are stigmatised and experience negative attitudes and prejudice in different settings (R. Puhl & Brownell, 2001; R. Puhl & Heuer, 2009). Perceived weight and height discrimination almost doubled from 1995–1996 to 2004–2006 in the United States, and this form of discrimination is considered comparable with age and race discrimination (Andreyeva, Puhl, & Brownell, 2008).

Despite the fact that we are becoming heavier, our ideal body shape has become thinner (Garner, 1997). It is common today for individuals to perceive weight gain as a very serious condition. About 20% of the participants in a 1997 survey reported that they would be willing to sacrifice more than 3 years of their life to achieve a desirable weight, and some women reported that they would not become pregnant because of the risk of becoming obese (Garner, 1997). Moreover, Schwartz et al. (2006) found that 30% of their sample in a study on the influence of one's own body weight on implicit and explicit anti-fat bias reported that they would rather be divorced than be obese. A Norwegian newspaper presented a survey of individuals' recommendations to the health authorities about which health problems they should prioritise, with the heading 'Norwegians fear fatness more than anything else' [Bergens Tidende 08.05.07] (Malterud & Ulriksen, 2010, p. 49).

Obesity is a stigmatised condition and both children and adults with obesity are stigmatised (R. Puhl & Heuer, 2009). For example, in educational settings, students are bullied and teased by peers and teachers (R. Puhl & Brownell, 2001). Although their bodily appearance makes them very visible, such individuals feel invisible and their status is devalued (Stevens, 2018). A Swedish study found that young obese men had a lower chance of attaining higher education than normal weight men, even after intelligence and parents' socioeconomic status was adjusted for (Karnehed, Rasmussen, Hemmingsson, &

Tynelius, 2006). Crandall (2016) found that parents of obese females were less likely to support them in going to college.

Another key issue is discrimination in employment settings. It is not uncommon for obese persons to be exposed to weight stigma from colleagues and employers (R. Puhl & Brownell, 2006; Roehling, Roehling, & Pichler, 2007; Rudolph, Wells, Weller, & Baltes, 2009; Ruggs, Hebl, Williams, & Chen, 2015). Such weight stigma can be expressed in pejorative humour or comments, or may result in obese persons not being hired because of their weight (R. Puhl & Heuer, 2009).

All these examples confirm that weight stigma has become firmly rooted in society. Research shows that negative attitudes and stigmatisation start from an early age (Borges, da Silva Barreto, dos Reis, Silveira Viera, & Silva Marcon, 2018; Cramer & Steinwert, 1998; Sigelman, Miller, & Whitworth, 1986; Skinner et al., 2017; Solbes & Enesco, 2010; Thomas et al., 2008). Cramer and Steinwert (1998) found that children as young as 3 to 5 years old held negative attitudes toward overweight bodies, and another study demonstrated that children from nursery school through to third grade rated obese peers as less liked than normal weight peers (Sigelman et al., 1986). In addition, negative implicit attitudes toward overweight children are seen in children from 9 to 11 years old (Skinner et al., 2017; Solbes & Enesco, 2010). A widely cited study by Richardson et al. (1961) revealed that when asked who they would choose as a friend, children ranked pictures of obese children last, compared with pictures of children with crutches and braces, in wheelchairs, with a missing left hand or with facial disfigurement. As some of these studies are older, it could be assumed that negative attitudes and discrimination among children have decreased owing to the increasing prevalence of obesity. However, in a replication of the 1961 study by Richardson and colleagues, Latner and Stunkard (2003) revealed that stigmatising of obesity among children has increased over the last 40 years.

Stigmatisation of overweight or obese persons appears to be the last acceptable form of stigmatisation in today's society (R. Puhl & Brownell, 2001). It seems as though the assumption that being underweight is good and being overweight is bad has become acceptable. The media has the ability to influence readers and viewers and present social norms and negative attitudes toward obesity. Media representations are therefore good examples of how weight stigmatisation is becoming acceptable (Eisenberg, Carlson-McGuire, Gollust, & Neumark-Sztainer, 2015; R. Puhl & Heuer, 2009; R. Puhl, Peterson, Depierre, & Luedicke, 2013) and show how stigmatising behaviours are presented as acceptable and normative (Thompson, Herbozo, Himes, & Yamamiya, 2005). Media, television shows, books, newspapers and social media stigmatise obese individuals, both adults and children, in different ways (Ata & Thompson, 2010, p. 41; Chou, Prestin, & Kunath, 2014; Lydecker et al., 2016). Obese individuals are often underrepresented in entertainment programs (Greenberg, Eastin, Hofschire, Lachlan, & Brownell, 2003) and if they are presented, they are commonly portrayed as unintelligent and unattractive (Ata & Thompson, 2010).

Furthermore, it is very common for such individuals to be targets for teasing (Eisenberg, Ward, Linde, Gollust, & Neumark-Sztainer, 2017). In a study of the distribution and individual characteristics of different body types on primetime television, overweight males were judged less attractive than their underweight or normal weight colleagues, and the likelihood of seeing large males eating was greater than seeing normal weight males eating (Greenberg et al., 2003). Another study that investigated cartoons and their messages in relation to weight revealed that socially desirable characteristics were associated with a thin body; an overweight body was associated with unfavourable traits (Klein & Shiffman, 2005). Lydecker et al. (2016) found that over 50% of messages about bodyweight on the social media platform Twitter were negative. The themes related to 'fatness' were gluttonous, unattractive, not sexually desirable, sedentary, lazy and stupid (Lydecker et al., 2016).

Although most research on media attitudes toward obesity has been conducted in the United States (Ata & Thompson, 2010), such attitudes are also found in Norway. A qualitative study exploring messages on obesity and health with data from five Norwegian newspapers identified two main themes (Malterud & Ulriksen, 2010). The first theme was obesity from an aesthetic point of view, which described newspaper references to how thin individuals seemed to be more attractive and happier, whereas people with overweight or obesity were perceived as ugly or even unhappy. The second main theme was the view of the obese person as an individual with a lack of control; associated with this view was that these persons were undisciplined and greedy, putting aside concerns for their own health and focusing instead on their immediate needs and that such people should be ashamed of themselves (Malterud & Ulriksen, 2010, p. 49).

One issue is that negative attitudes toward obesity are found in different settings. Another important issue is that obese persons commonly perceive such negative attitudes and weight discrimination (Brown, Thompson, Tod, & Jones, 2006; Cossrow, Jeffery, & McGuire, 2001; Creel & Tillman, 2011; Gudzone, Bennett, Cooper, & Bleich, 2014; Merrill & Grassley, 2008; R. Puhl, Moss-Racusin, Schwartz, & Brownell, 2008; Thomas et al., 2008). Obese individuals might experience feelings of being treated differently or poorly owing to their weight, and being treated worse than non-obese individuals by family members, in social and work environments and by service providers such as healthcare professionals (Cossrow et al., 2001). Furthermore, obese persons are often aware of stereotypes, such as the belief that they are lazy (Brown, 2006; Cossrow et al., 2001; R. Puhl et al., 2008), overeat, are unintelligent, have poor self-discipline or lack of willpower and even poor hygiene (R. Puhl et al., 2008, p. 353). According to Puhl et al. (2008, p. 351), one of the worst aspects of stigmatising experienced by overweight or obese individuals is being a target of verbal bias, such as 'intentional negative comments, insults, derogatory names, teasing, ridicule or being made fun of'.

There is a substantial number of studies that reveal negative attitudes toward obese patients among healthcare professionals such as nurses, physicians,

nutritionists, physical therapists, medical and nursing students and health professionals specialising in obesity (Akman, Kivrakoglu, Cifcili, & Unalan, 2010; Brown, 2006; Brown, Stride, Psarou, Brewins, & Thompson, 2007; Brown & Thompson, 2007; Budd, Mariotti, Graff, & Falkenstein, 2011; Edelstein, Silva, & Mancini, 2009; Hebl & Xu, 2001; Huizinga, Cooper, Bleich, Clark, & Beach, 2009; Persky, Eccleston, Persky, & Eccleston, 2011; Phelan et al., 2014; Poon & Tarrant, 2009; Sabin, Marini, & Nosek, 2012; Schwartz, Chambliss, Brownell, Blair, & Billington, 2003; Setchell, Watson, Jones, Gard, & Briffa, 2014; Sikorski et al., 2013; Teachman & Brownell, 2001; Vallis, Currie, Lawlor, & Ransom, 2007; Waller, Lampman, & Lupfer-Johnson, 2012).

Researchers have reported that nurses perceive obese patients as lazy, non-compliant, lacking in self-control (Schwartz et al., 2003), shapeless, slow, unattractive (Poon & Tarrant, 2009), not as good or successful as non-obese patients, unsuitable for marriage and untidy (Ward-Smith & Peterson, 2016, p. 125).

One reason why attitudes are investigated is the assumption that they may guide behaviour. Early research with the aim of investigating the relationship between attitudes and behaviour have revealed some conflicting results (Bohner & Wänke, 2014). LaPierre (1934) investigated the attempts of a Chinese couple to book restaurant tables and accommodation on a trip to the United States. Following the trip, letters were sent to the places the couple had visited to ask about their policy for accepting Chinese guests. The couple visited 251 places, but were refused entry only once, even though over 90% of the establishments later responded that they did not accept Chinese guests. LaPierre (1934) concluded that there was little connection between attitudes and behaviour. Although the study had some methodological problems, other studies also have failed to reveal a high correlation between attitudes and behaviour (Kutner, Wilkins, Yarrow, & Hunt, 1952). Over the years, researchers have continued to investigate relationships between attitudes and behaviours. A meta-analysis containing 501 studies conducted between 1927 and 1990 revealed that attitudes predict behaviour, even though there were lower correlations among some behavioural domains than others (Eckes & Six, 1994).

In the field of health research in general, researchers have found that attitudes can be associated with behaviours. For example, in the study conducted by Green et al. (2007), physicians' prowhite implicit preferences were associated with the likelihood of treating white patients with thrombolysis instead of black patients with thrombolysis. A study about Korean clinical nurses' intention to care for severe acute respiratory syndrome (SARS) patients indicated that the nurses' attitudes were determinants of their intentions of caring for SARS patients (Kim, Yoo, Yoo, Kwon, & Hwang, 2006).

To the researcher's knowledge, there are few studies that have investigated the association between health professional anti-fat attitudes and their behaviours. However, Akman et al. (2010) revealed that some nurses preferred to provide care for normal weight patients instead of overweight patients and that their

personal attitudes towards obesity accounted for 64% of the variance of their professional practice patterns. Another study revealed that nurses' beliefs about weight controllability were a predictor of the nurses' perceived personal discrimination behaviour towards obese patients. The researchers also found an association between the nurses' weight controllability beliefs and their perceptions of obese patients being treated differently by themselves and other nurses (Tanneberger & Ciupitu-Plath, 2018).

Moreover, there is evidence that overweight and obese individuals experience and perceive negative attitudes, stigmatisation and treatment from healthcare professionals (Buxton & Snethen, 2013; Creel & Tillman, 2011; Mensinger et al., 2018; Merrill & Grassley, 2008; Nyman, Prebensen, & Flensner, 2010; R. Puhl et al., 2008; Thomas et al., 2008). According to Merrill and Grassley (2008), overweight women in their study experienced 'being dismissed' by health care professionals; they felt that rather than being treated for their health problems, they were not believed and their weight was considered a problem. They also experienced 'not being quite human', a feeling of being different to others and not having the 'ideal' body size. Some patients feel they are being judged according to their weight by primary care providers, which reduces their trust in providers (Gudzune et al., 2014). Furthermore, barriers related to weight, such as negative attitudes from healthcare professionals, might lead obese patients to postpone health screening tests (Amy et al., 2006; A. M. Friedman, Hemler, Rossetti, Clemow, & Ferrante, 2012) or physician appointments (Olson, Schumaker, & Yawn, 1994). Obese patients also often struggle to physically fit into health care environments because of space and equipment limitations (K. E. Friedman et al., 2005; Merrill & Grassley, 2008; Nyman et al., 2010).

2.6 Intensive care

Florence Nightingale (1820–1910) is considered to have founded the precursor to ICUs during the Crimean War in 1854. She and her colleagues established a specific area in the hospital to provide intensive nursing care for the most seriously injured soldiers (Marshall et al., 2017; Weil & Tang, 2011). Until the mid-1950s, these wards were used primarily for intensive nursing care (Marshall et al., 2017). After World War II, developments in technical equipment, such as mechanical ventilation and haemodialysis, gradually transformed ICUs into units specialising in care for critically ill patients by a team of healthcare professionals (Marshall et al., 2017). Today, these teams include ICU nurses, physicians, physiotherapists, pharmacists and microbiologists. According to the World Federation of Societies of Intensive and Critical Care Medicine (WFSICCM) (Marshall et al., 2017, p. 271), intensive care is a 'multidisciplinary and inter professional specialty dedicated to the comprehensive management of patients having, or at risk of developing, acute, life-threatening organ dysfunction'. Although ICUs today are run by multidisciplinary teams, ICU nurses play a vital role in caring for ICU patients.

2.6.1 ICU nurses

In Norway, both qualified ICU nurses and registered nurses without training as ICU nurses work in ICUs. A Norwegian qualified ICU nurse is a registered nurse who has a bachelor's degree and 1.5 years of postgraduate education or 2 years of a master's degree in intensive care nursing. Compared to registered nurses, qualified ICU nurses are specialised in caring for critically ill patients in all age groups, and most of these nurses' work at ICUs or recovery units.

ICU nurses' duties are complex and demanding; the work requires extensive medical knowledge and expertise in a range of domains, as ICU nurses treat patients of all age groups and with different diseases or injuries. The Norwegian National Framework for ICU nurses describes a wide range of expertise that an ICU nurse should possess (Utdannings- og forskningsdepartementet, 2005); ICU nurses must be able to quickly change their treatment focus, treat and prevent complications, relieve pain, observe and assess changes in the patient's condition, and monitor advanced medical treatment. All these skills are part of the education and training to become a qualified ICU nurse.

Working as an ICU nurse can be stressful (Andolhe, Barbosa, Oliveira, Costa, & Padilha, 2015; Hays, All, Mannahan, Cuaderes, & Wallace, 2006). ICU nurses are exposed to various daily challenges in relation to patients' conditions; the fast-paced environment; managing a range of high-technology equipment such as monitors, ventilators and infusion pumps; taking care of family members and caring for dying patients. There is also the challenge of making fast decisions related to treatment and care that might influence patients' survival. The constant shift between diverse ways of caring, high levels of responsibility, and being involved in difficult moral situations can be very demanding for ICU nurses, and are all stressors that may lead these nurses to be vulnerable to developing burnout (Epp, 2012).

According to the Norwegian Intensive Care registry (Norsk intensivregister (NIR), 2016), about 15,000 patients are admitted annually to Norwegian ICUs. Furthermore, approximately 11% of these die each year in the these wards (Norsk intensivregister (NIR), 2016), a number that is expected to rise as society ages (Espinosa, Young, Symes, Haile, & Walsh, 2010). Therefore, ICU nurses may be increasingly expected to provide end-of-life care. End-of-life care is a different approach to the type of aggressive care that aims to restore patients to normal health (Espinosa et al., 2010). In addition to caring for critically ill and terminal ICU patients, ICU nurses must take care of families and relatives in crisis. Taking care of relatives may also be demanding, and some ICU nurses find that managing issues related to families is one of the greatest stressors at the ICU (Hays et al., 2006).

For decades, sedation has been central in ICUs (Egerod, Albarran, Ring, & Blackwood, 2013). Sedatives and analgesics help ICU patients withstand invasive therapies such as mechanical ventilation and alleviate pain and anxiety (Egerod et al., 2013). In the last decades, there has been a movement from deep sedation toward lighter sedation or even no sedation (Strøm & Toft, 2014), particularly in Nordic countries (Egerod et al., 2013; Strøm, Martinussen, & Toft, 2010). The shift to lighter sedation regimes, under which patients are more

conscious, has made care even more challenging for ICU nurses. As these patients are unable to talk because of intubation, they need more attention from the nurse to communicate their needs and wishes. Witnessing these patients experience suffering and stress without having the ability to alleviate their pain and suffering can be difficult and distressing for healthcare professionals (Karlsson & Bergbom, 2015, p. 365).

Although working as an ICU nurse can be stressful, research shows that core nursing tasks such as medical care for patients, which may be some of the most demanding tasks, increase ICU nurses' job satisfaction (Le Blanc, de Jonge, de Rijk, & Schaufeli, 2001).

2.6.2 ICU patients

ICU patients are critically ill. Many patients face life-threatening illness, which requires close and continuous monitoring and interventions for life-sustaining and technological support around the clock (Egerod et al., 2015). ICU patients experience multiple forms of physical and psychological stress (Lusk & Lash, 2005), and many patients find their ICU stay difficult. Experiences such as pain, anxiety, invasive treatment such as mechanical ventilation, feelings of shortness of breath, unfamiliar surroundings with new noises and smells, hunger and thirst, sleep deprivation, immobility, confusion, being scared, and lack of independence and dignity are factors that these patients can find very stressful (Alasad, Abu Tabar, & Ahmad, 2015; Puntillo et al., 2010; D. F. Wade et al., 2016).

Furthermore, ICU patients are surrounded by complex technological equipment that may make them feel the environment is unknown, incomprehensible, and frightening, leading to a feeling of being dependent on others and on the technological equipment (Almerud, Alapack, Fridlund, & Ekebergh, 2007).

Even though the shift in sedation strategies has increased the possibility of earlier mobilisation and improved mechanical ventilator weaning, human suffering is still evident during intensive care (Egerod et al., 2015). Patients who are conscious during mechanical ventilation often experience pain and discomfort caused by the tracheal tube (Karlsson, Bergbom, & Forsberg, 2012).

Patients' experiences in the ICU, such as the trauma of having a life-threatening illness, treatment, drugs and psychological reactions to admission, can lead to decreased long-term psychological well-being and recovery (D. M. Wade et al., 2012). Wade et al. (2012) found that 3 months after discharge, 44.4% of ICU patients experienced anxiety, 46.3% had probable depression and 55% had psychological morbidity. It is therefore important that ICU patients receive high quality care to relieve their pain, discomfort, anxiety and stress.

Obese ICU patients may face even more stress than normal weight ICU patients. One reason for this is that obese individuals may have abnormal pathophysiology (Bajwa et al., 2012; Selim et al., 2016). These changes may appear as problems in the respiratory (Murphy & Wong, 2013) and circulatory systems (De Divitiis et al., 1981; Sack, 2013). Respiratory system changes lead to problems such as increased respiratory rate, increased oxygen consumption and breathing difficulties (Murphy & Wong, 2013). Compared with non-obese patients, morbidly obese patients have a greater risk of serious respiratory complications

(Cook et al., 2011), such as higher rates of respiratory failure, mechanical ventilation and tracheostomy (Westerly & Dabbagh, 2011). As a consequence of adaptation to greater body mass, cardiovascular changes might occur (Ortiz & Kwo, 2015), leading to risk of cardiovascular diseases (Hubert, Feinleib, McNamara, & Castelli, 1983) and acute cardiovascular complications (Selim et al., 2016). These changes may lead to a higher risk of disorders such as venous thrombosis and embolism, hypertension and decreased blood volume (Ortiz & Kwo, 2015). Furthermore, heavy weight, decreased blood and oxygen supply, and reduced skin moisture can lead to fungus and bacterial skin infections; all these factors increase the chance of developing decubitus ulcers (Beitz, 2014). The above-mentioned problems caused by greater weight may result in special risks of complications, longer length of stay (LOS) in hospital and higher rates of ICU admissions (Westerly & Dabbagh, 2011), which might lead to an increased level of stress among these patients. Higher BMI is associated with higher ICU admission rates and longer LOS (Westerly & Dabbagh, 2011). In addition to experiencing physical stress, experiences of negative attitudes and stigmatisation, or the anxiety of facing such attitudes, may affect obese patients in many ways, leading them to experience psychological stress (Phelan et al., 2015; Wu & Berry, 2018).

2.6.3 Caring for obese ICU patients

Caring for obese ICU patients is challenging (Bajwa et al., 2012; Charlebois & Wilmoth, 2004; Hales, Coombs, & de Vries, 2017; Selim et al., 2016). These patients place special demands on ICU nurses owing to their abnormal pathophysiology and dysfunctions in one or more organ systems. These problems necessitate thorough observation and care to avoid further complications. Furthermore, the heavy body weight presents physical challenges in turning, repositioning (Hales et al., 2017) and monitoring because of a lack of equipment or customised equipment (Bajwa et al., 2012; Hales et al., 2017). Furthermore, the patient's heavy body weight may, in some cases, result in some nurses preferring to provide care for normal weight patients instead of overweight patients because of the health issues the nurses themselves will face, such as back pain, fear of dropping the patient (Altun Uğraş, Yüksel, Erer, Kettaş, & Randa, 2017) or experiencing colleagues' unwillingness to help in care situations (Shea & Gagnon, 2015).

2.7 Rationale for the thesis

Obese ICU patients may face more physical and mental stress than normal weight patients and hence be a particularly vulnerable group of patients. There is evidence that health professionals hold negative attitudes toward obese patients, but recent studies are scarce according to research specifically on nurses' attitudes and their behaviours (Ward-Smith & Peterson, 2016). A few studies have investigated ICU nurses' attitudes and challenges in caring for obese ICU patients, but these nurses are not described as qualified ICU nurses (Hales et al., 2017; Hales, de Vries, & Coombs, 2016; Shea & Gagnon, 2015).

To the researcher's knowledge, there is a gap in knowledge about ICU nurses' attitudes toward obese ICU patients, and whether these attitudes are associated with behavioural intentions. Appropriate care for obese ICU patients could reduce these patients' experiences of stress and discomfort and might have a positive influence on outcomes. An investigation of qualified ICU nurses' attitudes and behavioural intentions toward obese ICU patients, and nurses' experiences in caring for this group of patients, may provide new evidence and a comprehensive understanding of the complexity of attitudes toward this group of patients in the ICU setting.

3.0 AIMS OF THE THESIS

Based on the knowledge gap in this area, the overarching aim of the thesis was to explore qualified ICU nurses' attitudes toward obese ICU patients to obtain a deeper understanding of these issues. To achieve this understanding, it was desirable to understand ICU nurses' experiences in caring for obese ICU patients, to examine the nurses' implicit and explicit attitudes toward this group of patients and to investigate if ICU nurses' attitudes are associated with their behavioural intentions. The thesis comprises three articles with the following aims:

I. To obtain a deeper understanding of qualified ICU nurses' experiences of caring for obese ICU patients. (Paper I)

II. To design, translate and test research instruments to measure qualified ICU nurses' implicit and explicit attitudes, as well as their behavioural intentions toward obese ICU patients. (Paper II)

III. To examine qualified intensive care nurses' implicit and explicit attitudes toward obese intensive care patients, and whether their attitudes are associated with their behavioural intentions towards these patients. (Paper III)

Paper III has the following research questions:

- a) Do qualified ICU nurses have implicit preferences for thin over thick people?
- b) Do qualified ICU nurses report explicit attitudes and stereotypes that favour thin over thick people?
- c) Will qualified ICU nurses implicit and explicit attitudes be associated with behavioural intention?

4.0 THEORETICAL FRAMEWORK

This chapter presents the theoretical framework that forms the basis for the whole thesis. The framework has influenced the design of the project, the choice of different methods and attitude measures and the interpretation and analyses of the results from the three studies in the project.

Research on attitudes toward obesity may be perceived as a complicated phenomenon. Thus, it is important to reflect on relevant theoretical perspectives to establish which research paradigm this thesis follows. A paradigm can be described as a worldview, a particular perspective used to understand complex phenomena (Polit & Beck, 2012). The paradigm that underlies a research project has implications for the ontological and epistemological questions that are raised, which in turn determine the research methodology chosen.

The two main paradigms that have characterised nursing science research are the positivistic and the interpretative paradigms (Monti & Tingen, 2006). The paradigm of positivism has influenced the discipline of nursing and nursing research (Polit & Beck, 2012). Florence Nightingale, who has been called by some the most important women in the 19th century, is not only famous for her nursing work, but also for her work as a nursing theorist (Dossey, 2005). She worked systematically to collect data and prepare statistics (Egenes, 2018). She believed that if unhealthy factors in the environment could be documented, they could be removed or prevented, and public health could be improved. Although nursing care has been influenced by positivism, the discipline has evolved over time. Nursing gradually became more influenced by the interpretative paradigm, which was perceived by nursing scientists as more congruent with nurses' perspectives of holism, autonomy and individualism. In contrast, positivism emphasises reductionism, objectivity and prediction (Monti & Tingen, 2006).

Nursing science is a relatively new field and there are discussions among scientists about which paradigm nursing science is more closely related to today (Bahramnezhad, Shiri, Asgari, & Afshar, 2015). Some state that nursing is in a preparadigm state (Bahramnezhad et al., 2015); however, according to Smith and Parker (2015), multiple paradigms currently coexist in nursing science. Monti and Tingen (2006) have suggested that as nursing is related to human behaviour, a single viewpoint is not enough to explain the phenomena that nurses experience. Finding multiple answers to problems linked to the uniqueness experienced by nurses and patients requires multiple perspectives, rather than a reliance on a single paradigm. Answers to complicated problems or phenomena may therefore be erroneous if one chooses to select only one way to develop knowledge.

Because the core concepts in the current thesis are from psychology, it is important to acknowledge the research paradigm from this tradition, especially considering that these core concepts can be applied to a nursing context. In general, psychology has been dominated by positivistic research paradigms (Ponterotto, Hansen, Haverkamp, & Morrow, 2005), even though the number of

constructivist/interpretivist studies has increased over the past few years (Kovács et al., 2019; Ponterotto, Park-Taylor, & Chen, 2017).

Therefore, this thesis is based on both the positivistic and interpretative paradigms. The use of multiple paradigms is based on an ontological and epistemological view of reality in relation to the measurement of attitudes. Ontology is ‘the theory of the nature of what is’ (Delanty, 2003). An important question in considering the nature of reality regarding attitudes toward obesity is whether there is only one single truth. As the attitudes of each individual consist of various and often complicated aspects, the ontological view in this project is that there is no single truth. ‘Reality’ is considered to be the individual’s own experiences and attitudes toward obesity according to their lifeworld.

Epistemology is the theory of knowledge (Delanty, 2003), or the process by which we come to know something. As attitudes are very complex, the epistemological point of view in the thesis is that attitudes can sometimes be measured in a valid and reliable way, but some attitudes require deeper interpretation to obtain a fuller understanding of them. The ontological and epistemological view in this project is a combination of the belief that there are different realities of attitudes, and the belief that these can be both measured and interpreted.

Multiple paradigms were used in the thesis to obtain a more holistic approach to knowledge. Rather than using a single approach, both qualitative and quantitative data were collected to provide a broad and comprehensive picture of the complex nature of attitudes toward obesity. It has been important to understand, to describe and to interpret these complex attitudes, not to try to explain them.

4.1 The psychology of attitudes

There are several different definitions of attitudes, but these are often based on congruent perspectives (Bohner & Wänke, 2014). In this thesis, the well-known definition of attitudes from Eagly and Chaiken (1993, p. 1) has been used; this describes an attitude as ‘a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor’.

According to Eagly and Chaiken (2007), this is an umbrella definition that contains three important features: tendency, evaluation and attitude object. These features refer to a person’s tendency to evaluate a stimulus positively or negatively (Eagly & Chaiken, 2007, p. 583). Evaluation is aimed at the stimulus, which can also be called an ‘object’. An attitude object may be concrete or abstract; it might be an inanimate thing, a person or a group (Bohner & Wänke, 2014). Furthermore, attitude objects may be individual (e.g. an obese patient) or collective (e.g. a group of patients), and abstract (e.g. religion) or concrete (e.g. snakes or spiders) (Eagly & Chaiken, 2007). Evaluation occurs when we evaluatively respond to phenomena in various ways. Emotions, feelings, beliefs, thoughts, intentions and overt behaviour are all associated with evaluation. Evaluations that are expressed through responses and that reveal attitudes can be divided into affective, behavioural and cognitive responses (Bohner & Wänke,

2014; Eagly & Chaiken, 1993). Cognitive responses are thoughts, beliefs and knowledge about the attitude object, whereas affective responses include feelings and emotions. Behavioural responses incorporate reactions regarding how we behave or act toward the attitude object. These three responses are not always separable, and all three responses do not necessarily have to be present to be considered an attitude. See Figure 1.

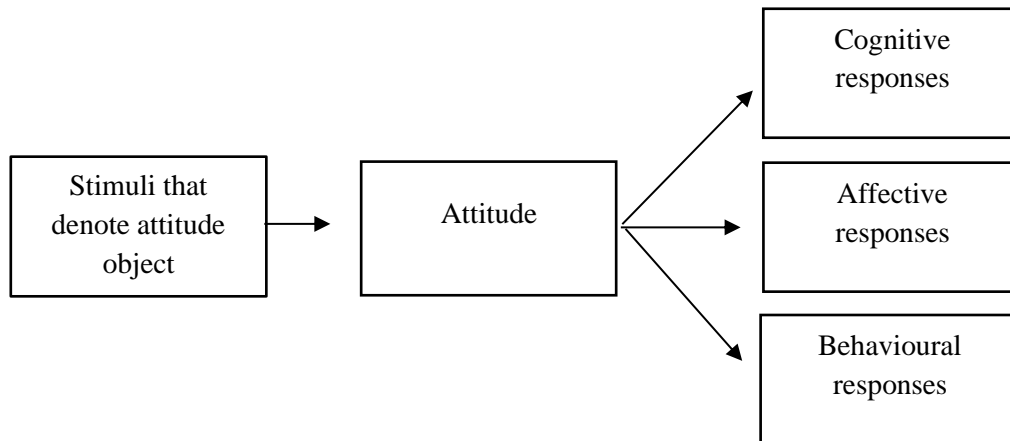


Figure 1. Illustration of how attitudes are inferred from an attitude object with evaluative responses, divided into three types of responses (Eagly & Chaiken, 1993, p. 10). Permission to use the figure received from Cengage, October 25, 2018.

Beliefs are considered the basic building blocks of attitudes, due to the assumption that people have beliefs about attitude objects. Beliefs are associations or linkages between the attitude object and different attributes (Fishbein & Ajzen, 1975). Beliefs link the attitude object with positive or negative attributes.

According to Eagly and Chaiken (1993, p. 2), ‘attitudes only occur when a person responds evaluatively to an object on an affective, behavioural or cognitive basis. Whether it is overt or covert, the evaluative response can lead to a psychological tendency to respond to an attitude object with a particular degree of evaluation when the attitude object is next encountered’. An attitude toward the object is created if the tendency to respond is established (Eagly & Chaiken, 1993).

A person may use several different processes to evaluate information about the surroundings; some processes may be ‘conscious, intentional and controlled, and others may be unconscious, unintentional and automatic’ (Banaji, 2001; Nosek, 2005, p. 2). Attitudes can therefore be explicit or implicit. Explicit attitudes are deliberate evaluations that the individual is conscious of, and that can be explained and reported (Eagly & Chaiken, 2007). These attitudes are often

measured by self-reports (Manns-James, 2015). However, social desirability bias can influence responses (King & Bruner, 2000). Social desirability is the tendency to respond in a way that is socially acceptable and in some cases can result in the underreporting of socially undesirable images (e.g. attitudes or behaviours) (van de Mortel, 2008). This is a particular problem in measurement of attitudes about sensitive topics (van de Mortel, 2008).

A fundamental psychological process is how we divide the world into good and bad, and how rapidly we do this. The function of identifying good and bad aspects of the world, or even categorising the environment as friendly or hostile, might therefore be an automatic process (Bohner & Wänke, 2014). Such automatic processes, also called implicit attitudes, are defined by Greenwald and Banaj (1995, p. 5) as ‘introspectively unidentified (or inaccurately identified) trace of past experience that mediates for example object-evaluative judgments’. These attitudes are outside of conscious control and the individual is not aware of such attitudes. Furthermore, Greenwald and Banaji (1995) noted that implicit cognition can reveal information that is unavailable for introspection, even if the individual has the motivation to obtain it. Although an individual may not be conscious of an implicit attitude, it may automatically be activated by an attitude object (Eagly & Chaiken, 2007). As implicit attitudes are automatic and unconscious, their measurement is rarely affected by social desirability bias (Manns-James, 2015)

Research findings on the relationship between explicit and implicit attitudes are inconsistent (Nosek, 2005; Teachman, Gapinski, Brownell, Rawlins, & Jeyaram, 2003). Some studies have found only small correlations between implicit and explicit attitudes (Greenwald & Banaji, 1995), and some studies have found that for some content fields these attitudes are related (Greenwald & Nosek, 2001; Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005). Several different variables may moderate the relationship between implicit and explicit attitudes (Nosek, 2005). For example a concern for self-presentation can lead individuals to refrain from reporting attitudes they are aware of, but do not agree with, or do agree with, but do not find socially acceptable to express (Nosek, Hawkins, & Frazier, 2011). Such social sensitivity may affect the degree of correlation between these two types of attitude (Greenwald, Poehlman, Uhlmann, Banaji, & Judd, 2009). The measurement of both implicit and explicit attitudes may therefore be a more comprehensive approach when investigating sensitive attitudes, because relying only on self-report measures could mean that important data are missed (Manns-James, 2015).

4.1.1 Stereotypes

Stereotypes are a component of attitudes and have been defined as ‘the attributes that an individual ascribes to a social group’ (Eagly & Chaiken, 1993, p. 104). Stereotypes therefore reflect beliefs about a group (Eagly & Chaiken, 1993) without taking into account the differences among individuals within that group (Reyna, 2000).

The process of stereotyping is related to what Erving Goffman (1963) termed

tribal stigma, or collective stigma (Biernat & Dovidio, 2000). It is more likely that individuals exposed to collective stigmas will be stereotyped owing to the belief that people who share the same stigma have particular characteristics (Biernat & Dovidio, 2000). Stereotypes often consist of several pre-defined assumptions that have consequences for the beliefs and behaviours toward the individual being stereotyped (Reyna, 2000). Stereotypes are not always negative; some stereotypes may be positive (Riley, 2010). Biernat and Dovidio (2000) have argued that stereotypes have important consequences for attitudes and behaviours toward groups; they influence thoughts about others, feelings toward others and how people act to those being stereotyped.

4.2 The theory of planned behaviour

Within psychology, there is no consensus about the meaning of behaviour. However, according to Bergner (2011), the most common definition is that a behaviour is 'any observable overt movement of the organism generally taken to include verbal behaviour as well as physical movements' (Behaviour, 2018).

Several theories have more thoroughly described how attitudes are linked to behaviour - including other predictor variables - showing that an important cause for behaviour is intention. These theories, also called the 'reasoned action theories', describe how explicit attitudes and beliefs influence intention and behaviour. Some of these theories are the theory of reasoned action (TRA) (Fishbein & Ajzen, 1975) and theory of planned behaviour (TPB; (Ajzen, 1991). The TBP is an extension of the TRA (Ajzen & Dasgupta, 2015; Bohner & Wänke, 2014). In the current thesis, because it is one of the leading theories of behaviours, the TPB is chosen as a way to describe and understand the link between attitudes, behavioural intention and behaviour. The variables in the theory fit well with ICU nurses' attitudes and the ICU context. However, Studies II and III are not designed based on the TPB, but some of the results from the studies will be discussed according to the theory.

Ajzen (1991, p. 181) argued that 'intentions are assumed to capture the motivational factors that influence a behaviour; they are indications of how hard people are willing to try, or how much of an effort they are planning to exert, in order to perform the behavior'. A central factor in this theory is the individual's intention to perform a behaviour, and here, it is argued that intention is the immediate cause of behaviour (Ajzen, 1991).

According to the TPB, intention is a function of three independent variables: *attitude toward the behaviour*, *subjective norm* and *perceived behavioural control* (Figure 2). The *attitude toward the behaviour* refers to the degree of an individual's favourable or unfavourable evaluation of the behaviour (Ajzen, 1991); it is the expectation of a certain consequence of the behaviour multiplied by the value connected to the consequence of the behaviour (Bohner & Wänke, 2014). The *subjective norm* refers to a person's belief about social pressure to perform or not perform a behaviour. The third variable, *perceived behavioural control*, refers to a person's actual control over the behaviour and the ability to

perform such a behaviour. Perceived behavioural control can affect behaviour directly or indirectly via behavioural intention. The three independent variables vary in degree of how important they are as determinants of behavioural intention. In some cases, all three variables are important determinants, and in some cases, only one or two of them are enough to explain the intention. The importance of the variables may vary among individuals or populations (Ajzen, 2005).

Ajzen (1991, p. 189) argued that behaviour is a function of the beliefs and information that are relevant to the behaviour. These beliefs are important determinants of a person's intentions or behaviours. Therefore, the TPB also includes salient antecedents of the three independent variables: *behavioural beliefs*, *normative beliefs* and *control beliefs*. *Behavioural beliefs* are the beliefs about the probable consequences of behaviour, and these beliefs influence the favourable or unfavourable *attitude toward the behaviour*. Beliefs about social norms are, for example, a person's belief about codes of behaviour among a group or individuals, such as in a cultural context, or among friends, coworkers or family; this is a person's belief that a group or individuals would approve or not of the individual performing a behaviour or if the group or the individual would engage in the behaviour or not (Ajzen, 2005). These beliefs underly *subjective norms* (Ajzen, 2005). Finally, *control beliefs* are the beliefs about various factors that can improve or hinder behaviour (Ajzen, 1991). Control beliefs can be derived from past experiences with the behaviour, or they can be based on second-hand information by observing, for example, coworkers' experiences. In other words, this is the belief about if one has the ability to perform or not the behaviour and is the basis for *perceived behavioural control* (Ajzen, 2005).

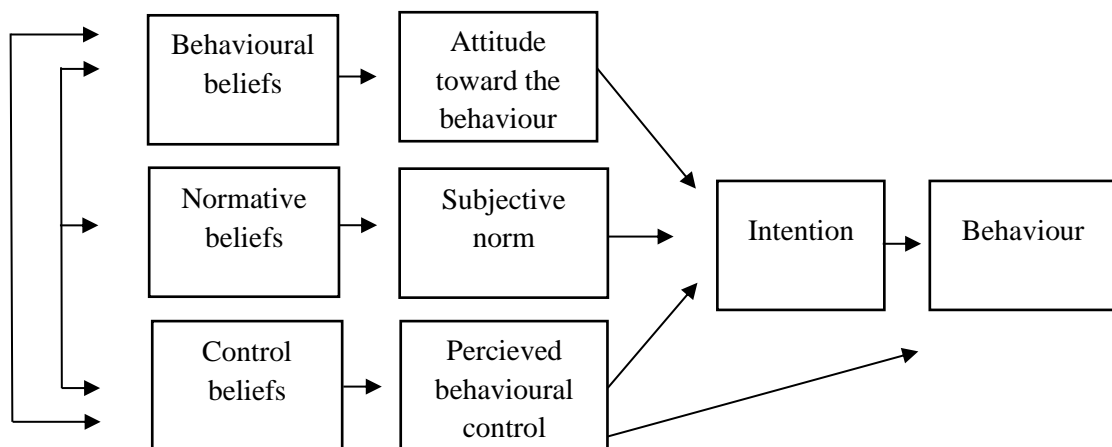


Figure 2. Schematic depiction of the TPB. Derived and modified from Ajzen (1991).

Even though the TPB involves explicit attitudes, researchers have proposed that implicit attitudes can be incorporated into the theory (Ajzen & Fishbein, 2000; Jaccard & Blanton, 2007). Ajzen and Dasgupta (2015, p. 136) argued that implicit attitudes can predict behaviour alone or in combination with explicit attitudes, and they have strong effects on important decisions. According to Jaccard and Blanton (2007) implicit attitudes must serve as a distal variable and hence have an impact on behaviour through the core variables of the TPB. In the TPB, implicit attitudes can be the antecedents to behavioural beliefs, normative beliefs and control beliefs (Jaccard & Blanton, 2007). This may be understood, as Gawronski and Bodenhausen (2006) argued, as the way in which explicit evaluative judgments often are based on automatic affective responses.

Research has demonstrated that implicit and explicit attitudes predict different types of attitudes. Attitudes that are outside conscious control may predict behaviour (Ajzen & Fishbein, 2005; Greenwald, McGhee, & Schwartz, 1998; Nosek, Greenwald, & Banaji, 2007), but these attitudes may lead to more spontaneous behaviours and predict behaviour better than explicit attitudes, particularly in relation to sensitive conditions such as prejudice and stereotypes (Greenwald, Poehlman, Uhlmann, & Banaji, 2009). Implicit attitudes tend to be better predictors of prejudiced expressions, such as non-verbal attitudes, than explicit attitudes (Ajzen & Fishbein, 2005). In contrast, explicit attitudes are assumed to be activated in a more thoughtful manner and require cognitive effort (Eagly & Chaiken, 2007). One assumption is that negative and stereotypical associations are automatically activated in encounters with stimuli. Behaviour will be directly activated by the association or stereotype if the person is not motivated or able to express these associations. If the person is able or motivated to control these automatic associations, the behaviour is unlikely to be prejudiced or stereotypical (Gawronski, 2002, p. 171). Nevertheless, more recent research has revealed that implicit attitudes and stereotypes predicted behaviours that were consciously controllable (Agerström & Rooth, 2011; Green et al., 2007). Ajzen and Dasgupta (2015) argued that it is now an open question as to which conditions must be present when trying to better predict implicit attitudes and their automatic behaviours compared with more controlled behaviours.

According to Bohner and Wänke (2014) some researchers have concluded that the question of whether attitudes predict behaviour is too broad, hence it is more important to determine which conditions that must be present to determine that attitudes correlate with behaviour. One of these conditions is linked to the measurement of attitudes and behaviours and how these measurements can be improved to strengthen the association between attitudes and behaviours (Bohner & Wänke, 2014). When it comes to measurements, Ajzen and Fishbein (1977) described both attitudes and behaviours in relation to four different characteristics: the action element, the target element, the context element and the time component. The action element refers to which kind of attitude is being measured. The target element is the target of the behaviour, while the context is where the action (behaviour) is performed. Finally, time refers to when the action or behaviour is performed (Ajzen & Fishbein, 1977). Ajzen and Fishbein (1977) revealed that strong relations between attitudes and behaviours could only be

present if the specification of the measures corresponded or were similar. For example, if the aspect of the attitude and the behaviour are accessible at the same time, the attitudes and behaviours are more likely to be closely related.

A second condition related to variables that might moderate the strength of the relation between attitudes and behaviour are personal or situational factors (Bohner & Wänke, 2014). An example of personal and individual difference is self-monitoring which seems to be a moderator of behaviour. Individuals with low self-monitoring, are assumed to act on their personal preferences and values, understood as the basis of principles, while individuals with high self-monitoring acts based on requirements of a situation (Snyder & Swann, 1976). Higher attitude-behaviour correlation is therefore found among individuals with lower self-monitoring compared to those with higher self-monitoring (Bohner & Wänke, 2014). When it comes to situational factors as moderator for behaviour, Ajzen (2005, p. 42) argue that it is easier to act in accordance with your attitudes if there is an absence of situational constraints (e.g. social norms) (Bohner & Wänke, 2014). Furthermore, there is a chance that people will overestimate their willingness to engage in socially desirable behaviours. If behavioural intentions are inaccurately reported, it can cause a discrepancy between intention and behaviour (Ajzen, Brown, & Carvajal, 2004).

If attitudes and behaviour are measured in a proper way, attitudes can be associated with behaviour. Nevertheless, as described above, there are several moderators and conditions that can influence the relation between attitudes and behaviours.

4.3 Stigma theory

To provide a deeper and comprehensive understanding of how individuals perceive and interact with people with a visible otherness, the perspective of Goffman's stigma theory, which describes these intricate interactions, is appropriate for this thesis (Goffman, 1963). Moreover, this theory acts as a basis for the negative attributes used in the instruments in the current thesis.

Professor and sociologist Erving Goffman, born in Canada in 1922, is considered a representative of interactional sociology and has had a profound influence on anthropological and sociological research. He has been described as a man who saw the little things that were not immediately visible to others. These small things are often the most decisive aspects of normal social life, such as the most hidden strategies underlying the banal moments in daily life (Bourdieu, 1983). Goffman is said to have had the ability to look behind an apparently trivial facade and describe a person's everyday life experiences; that is, experiences that seem inconsequential or banal, or experiences to which a person has adapted and that lead them to believe that this is how the world looks (M. H. Jacobsen & Kristiansen, 2016). In 1963, Goffman wrote the book 'Stigma: Notes on the Management of Spoiled Identity'. He describes in this book how interactions between stigmatised and normal people take place, and how stigmatised persons adapt to the situation.

It has been asked why Goffman's sociology, still after so many years remains so interesting and inspiring (M. H. Jacobsen & Kristiansen, 2016). According to Jacobsen and Kristiansen (2016), Goffman's stigma theory is timeless. The theory encompasses some fundamental and immutable aspects of humans and society. Furthermore, Goffman's sociology deals with aspects of experience that we take for granted, and which we easily ignore as they happen right before our eyes. For example, qualified ICU nurses' attitudes toward obese patients may be perceived as minor unobservable aspects of the nursing environment, but they may influence obese ICU patients.

The term 'stigma' dates back to ancient Greek society. Stigma was referred to as a physical sign cut or burned into a person's body (like a tattoo) to indicate that there was something bad about the person's moral status. These signs were used to differentiate persons who were, for example, criminals, slaves or blemished in some way. In Christianity, stigma is considered either a sign of holy grace that shows itself as marks on the skin, or a religious allusion to physical disease (Goffman, 1963). The current use of the term is closer to its literal original Greek meaning, but it denotes a kind of 'dishonour' more than bodily traits or characteristics.

According to Goffman (1963), stigmatisation is the categorisation of a person into a discrediting social identity. Goffman (1963, p. 15) explained that a person with a stigma is perceived as being 'not quite human'; on the basis of this perception, we perform different types of discrimination against the stigmatised person. Furthermore, we are likely to create a stigma describing his inferiority and convince ourselves of the negative impacts that the person may have on us. Goffman (1963) defines people that do not deviate from a negative expectation as the 'normal'.

Society divides people into different categories and sets up properties that are perceived as normal and natural for people in this category. A person's appearance, their qualities, and what Goffman (1963) terms their social identity indicate to which category they belong. These first impressions are converted into normative expectations or even requirements, which constitute a virtual social identity. This virtual social identity consists of our expectations and predictions of how the individual should be. We often do not realise the requirements we make or understand what they mean until we ask ourselves whether they have been fulfilled or not. The virtual social identity is created by assumptions and stereotypes, but the person's actual social identity comprises the qualities that the person actually holds and the category he or she actually belongs to. A discrepancy between actual social identity and virtual social identity indicates a stigma (Goffman, 1963).

Goffman (1963) divided the term stigma into three different categories (Goffman, 1963). The first category is abominations of the body, described as different physical malformations. The next category relates to weaknesses in the person's character; for example, lack of willpower, unnatural passions, dishonesty or extreme beliefs. This weakness may arise from factors such as mental illness, alcoholism, imprisonment and drug abuse. The third category

comprises tribal stigma, such as race, nation and religion, which can be transferred from generation to generation and can influence all family members (Goffman, 1963). These different features attract attention and influence the people around the individual, who avoid perceiving the other qualities the individual possesses. The individual has a quality that is experienced by others as different and unanticipated: this is a stigma. Obese individuals fit well into the first two categories.

The information that describes the stigmatised person through bodily expressions and is easily perceived by people in his/her presence, is what Goffman (1963) termed social information. Signs that convey social information and that are frequently available and are sought for and received by others are called symbols. Such symbols may be prestige symbols or stigma symbols. Prestige symbols are signs such as a wedding ring or an emblem referring to a membership in a prestige club or organisation. A stigma symbol might draw attention toward a negative attribute, such as obesity. A stigma that is visible in daily life and in meetings with other persons may inform others about an individual's social identity. The stigmas of others are often perceived visually. The visibility of a stigma may therefore be of great importance for the stigmatised person.

5.0 DESIGN, METHODS AND RESULTS

This was a multiparadigm project. The research used a ‘sequential QUAL → quan’ multimethod design that incorporated both qualitative and quantitative approaches for the three studies, which were conducted sequentially (Morse, 2003). The design for all three studies is presented in chapter five, while sample and setting, data collection and data analysis of the three studies are presented separately. The results are presented in this chapter, as the results from Study I are important for understanding the design of Study II, and the results from Study II are important for understanding the design of Study III.

The results are presented here in a summarised form, as they are described more fully in the articles attached to the thesis. Summary results from the three studies are presented in chapter six.

5.1 Design

‘Sequential QUAL → quan’ refers in this case to a project that are qualitative driven followed by quantitative projects and where the studies are conducted sequentially (Morse, 2003). The first study (Study I) was a qualitative study with an inductive approach. An inductive approach utilises observations from a number of cases that can then lead to a generalisation (Alvesson & Sköldberg, 2009; Polit & Beck, 2010). In this case, it was the variations in the ICU nurses’ experiences that could lead to a more general pattern. It was expected that the results from this study would lay the foundation for the next two studies. To gain a deeper understanding of the ICU nurses’ lifeworld according to their experiences in caring for obese ICU patients, a qualitative hermeneutic approach was chosen for Study I (Fleming, Gaidys, & Robb, 2003). It was expected that understanding the issues from a lifeworld perspective would provide knowledge that could be used to decide what kinds of attitudes should be measured, and which attitude measurements should be incorporated, in the next two studies.

To understand and further explore ICU nurses’ implicit and explicit attitudes and behavioural intentions toward obese ICU patients in a more measurable way, a cross-sectional pilot study was conducted for Study II. In Study II, research instruments to measure qualified intensive care nurses’ implicit and explicit attitudes and behavioural intentions toward obese ICU patients were designed and tested. Study II served as a preliminary study to guide the design of Study III. In Study III, qualified ICU nurses’ implicit and explicit attitudes and behavioural intentions toward obese ICU patients were measured. Study III was a cross-sectional study of a larger sample of ICU nurses. Both Study II and Study III used a deductive approach. A deductive approach proceeds from a general rule or principle to more specific predictions (Alvesson & Sköldberg, 2009; Polit & Beck, 2010). In this case, this was the assumption that ICU nurses hold fewer negative attitudes toward obese ICU patients than other health care professionals.

An overview of the three studies is presented in Table 2, and describes the design, data collection, sample procedure, sample, inclusion criteria, setting and data analysis.

TABLE 2. Description of the three studies

Study	Design	Data Collection	Sample procedure	Sample	Inclusion criteria's	Setting	Data analysis
I	Qualitative	Individual, semi-structured interviews	Convenience sample	Thirteen qualified ICU nurses	Qualified ICU nurse working at an ICU with >two years of work experience as ICU nurse	Two general ICU wards	Gadamerian based hermeneutic research method
II	Quantitative, cross-sectional pilot study	Computer based survey and focus group interviews	Nonprobability convenience sample	Thirty qualified ICU nurses attended the survey, and ten of them attended focus group interviews	Qualified ICU nurse working at an ICU	One general ICU ward	Qualitative thematic analysis Statistical analyses regarding reliability and validity
III	Quantitative, cross-sectional	Computer based survey	Non-probability consecutive sample	159 qualified ICU nurses	Qualified ICU nurse working at an ICU	Sixteen small and major ICU wards (medical, surgical and general) at fifteen hospitals, and ICU nurses from a Facebook group	Univariate and multivariate statistical analyses

5.2 Study I

The aim of this study was to obtain a deeper understanding of qualified ICU nurses' experiences of caring for obese ICU patients.

5.2.1 Sample and setting

A convenience sample of 13 qualified ICU nurses was recruited according to the following inclusion criteria: being a qualified ICU nurse, having worked as an ICU nurse for at least 2 years and working at an ICU. A period of 2 years of work experience was chosen to ensure that the nurses had experience in caring for obese ICU patients. To ensure a rich data set, it was decided to recruit 15 nurses; however, as the wards were very busy, only 14 nurses were available. One nurse had less than 2 years of work experience and was excluded from the study, resulting in the inclusion of 13 ICU nurses. The manager recruited participants according to which nurses were available on the day of the interviews and according to the inclusion criteria. To the researcher's knowledge, no participants declined to participate. To avoid bias arising from a perception that participation was compulsory (as the manager had recruited the participants), all ICU nurses at the wards received an email with information about the study 1 week before the interviews (Appendix 1). They were also informed more fully about the study by the researcher the day at the interview to ensure that they were adequately informed and had the opportunity to withdraw from participation if they wished and gave written consent (Appendix 2).

The nurses worked at two ICUs (5 at one ICU and 8 at the other ICU) at two different hospitals in Norway. The wards were general ICUs comprising 7 and 10 beds. The selection of the two ICUs was based on several criteria: these ICUs were chosen to avoid any previous relationship between the researcher and the participants; large hospitals were chosen so that the participants had experience in caring for obese ICU patients and the specific hospitals were chosen to ensure that the ICUs were from different geographical parts of the country.

5.2.2 Data collection

Semi-structured individual interviews were conducted to obtain a deeper understanding of qualified ICU nurses' experiences of caring for obese ICU patients. The interviews were conducted face-to-face over a period of 3 days in February and March 2016 and lasted between 16 and 47 minutes (median = 27 min, mean = 30 min). At the first hospital, the interviews were conducted during the day shift over 2 days; at the second hospital, interviews were conducted during both day and evening shifts over 1 day. The interviews took place in various quiet rooms in the ICUs or in rooms connected to the ICUs.

The research method was inspired by the Gadamerian-based research method of Fleming et al. (2003). This method was specifically designed for nursing research and consists of five steps: 1) Deciding upon a research question; 2) Identification of preunderstanding; 3) Gaining understanding through dialogue with

participants; 4) Gaining understanding through dialogue with text and 5) Establishing trustworthiness. Step 4 and 5 is described in chapter 5.2.3.

The **first step** was deciding upon research questions. This step emphasises the importance of the congruency between the study purpose or the interest in the theme and the aims of interpretative hermeneutics, leading to useful findings (Fleming et al., 2003). Early in the research process, it became clear that obtaining a deeper understanding of ICU nurses' experiences in caring for obese ICU patients would constitute the basis for the research questions, which is consistent with a Gadamerian-based method. According to Gadamer (1990), asking the right questions is essential in achieving this type of understanding, and the whole research process may be influenced by the initial research question (Fleming et al., 2003). Therefore, an interview guide was developed according to the study aim of allowing the ICU nurses to describe their experiences of caring for obese ICU patients (Appendix 3).

During the development of the interview guide, it was important to keep in mind that a good research question is not always a good dynamic question (Kvale & Brinkmann, 2009). The aim was to allow participants to generate spontaneous descriptions instead of more speculative explanations (Kvale & Brinkmann, 2009). Therefore, open-ended questions were used to encourage nurses to provide comprehensive and profound descriptions of their experiences. Different themes with related questions were developed. The themes centred on how nurses described the typical obese ICU patient, and their experiences in caring for obese ICU patients. Furthermore, sub-questions were developed for each theme to elaborate the nurses' experiences. An example of a question and sub-questions related to a theme is as follows:

'Can you describe your experiences of caring for obese ICU patients?'

- a. Intensive care? Receiving the patient?
- b. Something else?
- c. Please describe a positive situation.
- d. Please describe a negative situation.

Step 2 in the Gadamerian-based research method is identification of preunderstanding. In a hermeneutical Gadamerian-inspired approach, identification of the researcher's preunderstanding is an important part of data collection. As the researcher has worked as an ICU nurse for several years, and has experience and understanding of the ICU context, the ICU norms and busy work situation, these preunderstandings were important to reflect upon. Furthermore, the researcher's experiences in caring for obese ICU patients, and perceiving various attitudes toward these patients at the ICU, has been an important part of her own preunderstanding. Discussion with supervisors, and writing reflective notes about thoughts and experiences, was a good help in identifying the researcher's preunderstanding.

Gaining understanding through dialogue with participants is the **third step** in Fleming et al.'s (2003) research method. According to Gadamer (1990), understanding is possible only through dialogue; therefore, the conversation between researcher and participant is an appropriate way of gaining a deeper understanding of a phenomenon.

The interview started with an individual briefing, in which the researcher described the aim of the project, that the researcher was an ICU nurse herself and that the interview would be audiotaped. Participants were informed that the interview would be anonymous and that they could withdraw if they wished. Before the interview started, the participants were asked if they had any questions.

The first question was an opening question that aimed to provide nurses with the opportunity to talk freely about their experiences working as ICU nurses; it was hoped that this neutral question would help nurses feel relaxed in the interview setting. The opening question was 'How does it feel to work as a qualified ICU nurse?'

To elaborate or clarify the nurses' experiences, follow-up and probing questions were asked if necessary. Silence was also used to allow the generation of additional interview material. It was important not to be afraid to have pauses during the interview, as silence permitted participants to reflect on and discuss more of their experiences caring for obese ICU patients (Krueger & Casey, 2009). Using silence as a type of interview question was perceived as an effective tool.

According to Kvale and Brinkmann (2009), most participants experience participation in an interview as positive if they have been able to speak freely to an interviewer who actively listens. However, the appropriate way to end an interview is through debriefing. Thus, the interview was followed up with a debriefing in which the researcher stated that there were no further questions and asked if the participants could think of anything that they wished to talk about, elaborate or ask about.

5.2.3 Data analysis

The **fourth step**, which involves gaining understanding through dialogue with text, was used to analyse the data (Fleming et al., 2003). The analysis process consisted of four steps: I). Read all the interviews to fully understand the meaning of the whole text, II). Investigate sentences or sections to expose their meanings and facilitate the identification of themes, III). Relate sentences or sections to the meaning of the whole text, IV). Identify passages representative of the shared understandings between the researcher and participants.

Before the analysis process, all interviews were transcribed verbatim by the researcher and then imported to the data management software program NVivo 11 (QSR International, 2017).

Step I involved reading the whole text to understand its meaning. The understanding of text starts during transcription, as this is a good way to become familiar with the data (Braun & Clarke, 2006). Bird (2005, p. 228) has argued that transcription is a key phase of the data analysis and is an interpretive act. It is important to acknowledge that an interview is a social interaction between the researcher and participant, and that voice, gesture and body language are part of the conversation (Kvale & Brinkmann, 2009). This important non-verbal conversation is only visible in the situation and will not be visible after the interview has been transcribed. This is one important reason why the researcher decided to transcribe the interviews herself; the transcription process allowed her to become even more familiar with the text as it was the researcher who conducted the interviews.

Kvale and Brinkman (2009) state that there is no universal code of how to transcribe interviews. However, some decisions must be made, such as whether the transcription should be verbatim and if pauses or emotional expressions should be noted. In this study, transcription of interviews was verbatim (i.e. word for word, including repetitions) and emotional expressions such as laughter or sighs were noted as necessary. This thorough transcription was conducted in the belief that a more complete verbal transcription would provide more information than a shorter summary of the material.

The transcribed text was read thoroughly several times by the researcher and one of the supervisors to obtain an understanding of the meaning of the whole text and to find expressions that could reflect the whole text. According to Fleming et al. (2003), the generated meaning of the whole text will affect the understanding of each part of the text later in the analysis. Finding these expressions resulted in a new understanding of the complexity of caring for obese ICU patients.

Step II consisted of investigating sentences or sections to expose their meanings and facilitate the identification of themes. Sentences or sections were abstracted into meaning units in NVivo and further merged into subthemes (QSR International, 2017). Some of the sentences or sections that were abstracted into meaning units were discussed with one of the supervisors to ensure the quality of the analysis. In this step, the researcher had to particularly reflect on her own preunderstanding, as the researcher's preunderstanding could influence the identification of subthemes and themes. It was a challenging process to be aware of one's own preunderstanding and reflect on how the preunderstanding might affect the interpretation. As the researcher is a qualified ICU nurse with experience, knowledge and understanding of ICU nurses' work situation, it was important to be careful in identifying themes and in using her own preunderstanding to ensure that the interpretation was not based solely on the researcher's experiences. Therefore, discussions with supervisors were helpful during this process. Eventually, after a long and time-consuming process, the subthemes were merged into themes. This entire process was a fusion between text and interpretation.

In **step III**, sentences or sections were related to the meaning of the whole text, expanding the text as a whole. The movement from the whole to the parts and

back to the whole is an essential aspect of hermeneutic philosophy. Using the hermeneutic circle (Gadamer, 1990), the researcher gained a deeper understanding of the whole text and the parts, thereby extending the meaning. This was a fusion between the researcher's preunderstanding and the participants' experiences as presented through the dialogue.

The researcher's preunderstanding was constantly evolving. New and deeper understanding of the text appeared during this circular hermeneutic process. Initial themes were developed several times into new and clearer themes through the process of the hermeneutic circle. The identification of themes was a lengthy and demanding process, but finally resulted in a deeper understanding of qualified ICU nurses' experiences of caring for obese ICU patients.

For the final step, **step IV**, passages representative of the shared understandings between the researcher and participant were identified. The passages illustrate the results of the whole interpretation (Fleming et al., 2003). Some of these passages were presented as quotations in the article to underpin and illustrate the interpreted results (Fleming et al., 2003).

5.2.4 Results

Participants were all females with a mean age of 45.1 years (standard deviation (*SD*) = 5.9; range = 33–54 years) and a mean work experience as qualified ICU nurses of 11.1 years (*SD* = 6.3; range = 4–22 years).

Three themes emerged from the interpretations: the vulnerable patient, the different patient and the physically demanding patient. The themes revealed a picture of qualified ICU nurses' experiences of caring for obese ICU patients that was characterised by ambivalence and contradiction, with conflicted feelings, attitudes and beliefs.

The nurses found it emotionally demanding to care for these patients owing to feelings and beliefs about the patients' vulnerability and dissimilarity. They felt that it was emotionally difficult and taxing to witness obese ICU patients' vulnerability and exposure because of a lack of appropriate clothing, the need for more nurses to be present in care situations, the patients' feelings of shame owing to excessive weight and worries about the possibility of patients perceiving negative attitudes present on the ward.

The ICU nurses experienced obese ICU patients as different to normal weight patients in various ways. Obese patients were perceived as extraordinary; they were referred to differently and generated different attitudes and beliefs compared with normal weight patients. Furthermore, obese patients were sometimes perceived as 'big bodies' instead of individuals; it was not until the nurses got to know the patients that they perceived them as like other patients. Another form of differentness was the belief among some nurses that obesity is a self-inflicted condition; this belief led to emotional frustration among nurses generated by different views of how a person should live their life.

The nurses endeavoured to provide equal and appropriate care to all patients regardless of their weight, but experienced obese patients as physically demanding. They felt that it was difficult to perform procedures on these patients and that there was a lack of appropriate equipment; they were also afraid of being injured during care situations. The fear of injury resulted in an unwillingness among some nurses to care for obese patients. Furthermore, feelings of frustration arose toward colleagues who did not want to care for these patients.

5.3 Study II

The aim of this study was to design, translate and test research instruments to measure qualified ICU nurses' implicit and explicit attitudes, as well as their behavioural intentions towards obese ICU patients.

5.3.1 Sample and setting

Thirty qualified ICU nurses were recruited from a general ICU located in a medium-sized hospital in Norway according to a non-probability convenience sampling method. The inclusion criteria were qualified ICU nurses, working in an ICU and available on the day of the test.

Ten of the nurses also participated in focus group interviews after the survey (five nurses in each group).

All the ICU nurses were chosen and recruited by the ICU manager according to the inclusion criteria, and according to who was able to leave their duties on the ward. On the day of the survey and focus group interviews, the manager organised for the recruited nurses' duties to be passed to other nurses and asked the recruited nurses if they were willing to participate. To our knowledge, no nurses refused to participate. Furthermore, the researcher was present on the ward, gave every participant both verbal and written information about the survey, informed them that participation was voluntary, and received written consent (Appendices 4 and 5).

5.3.2 Data collection

The study was performed between March and May 2017 over 4 days. The participants completed the survey in two different quiet rooms at the ICU. The two focus group interviews were also conducted in a quiet room at the ICU.

The survey was stored on a memory stick; therefore, the researcher started the computer program for each participant, and the nurses completed the survey one at a time. The survey took 24 minutes (SD = 5.30; range 16.00-34 minutes) to complete.

Focus group interviews with ten of the nurses (five in each group) were conducted after completing the survey and lasted 22 and 28 minutes, respectively. The focus group interview was part of the translation procedure for some of the instruments and served to elaborate any ambiguities and

misunderstandings, and to establish the comprehensibility and cognitive equivalence of the translated text (Wild et al., 2005). The focus group interviews were also used to establish face validity of the study.

Instruments

Study I was the basis for the next two studies according to which attitudes should be measured and what attitude measures should be used. The results of Study I revealed that nurses held some ambivalent attitudes, stereotypical feelings and beliefs toward obese ICU patients. These results provided a deeper understanding of the ICU nurses' view of these patients, and how difficult it can be to express attitudes and beliefs. Therefore, we decided to measure both implicit and explicit attitudes to obtain a more holistic picture of the nurses' attitudes. Furthermore, we decided to measure stereotypes and beliefs in addition to attitudes, as these concepts formed part of the nurses' attitudes in Study I. We had to design, translate and test instruments to ensure that the survey could be used in a larger-scale study (Study III).

The survey was designed using a custom-made computer program.

The following variables were measured:

- 1) Implicit attitudes and stereotypes using IATs;
- 2) Explicit attitudes using the Anti-fat Attitude (AFA) questionnaire and explicit bias scales to assess participants' feelings and beliefs about thick and thin people;
- 3) Behavioural intentions using vignettes presenting short workplace scenarios.

Demographic data on sex, age, years of experience as an ICU nurse, education and participants' self-perceived weight (very underweight, underweight, normal weight, overweight, very overweight) were also assessed in the survey.

The participants were also given the opportunity to write a comment about the study.

The following sections describe the instruments in more detail.

The IATs

Implicit attitudes and stereotypes were measured using IATs, which were originally developed by Greenwald et al. (1998). These are widely used within various fields of research and have been used in health research to measure implicit attitudes (Manns-James, 2015). IATs are generally computer based and comprise a series of permutations of matching tasks (Manns-James, 2015). These tasks are built on blocks that consist of contrasting concepts (positive and negative) represented as words or images (e.g. thin and thick; good and bad). For example, during the IAT, participants are presented with target words at the top of the computer screen. The participants' task is to categorise attribute words with target words as fast as possible using two designated computer keys on each side on the keyboard (e.g. D for thick and K for thin). The tool measures the

strength of associations between concepts (target words and attribute words) from response latencies (Nosek et al., 2007). The response latency (the response time) is measured in milliseconds (Manns-James, 2015). Stronger associations between concepts result in faster response times (Greenwald, Poehlman, Uhlmann, Banaji, et al., 2009). The assumption behind the IAT is that it may be easier to categorise concepts that are strongly associated than to categorise concepts that the participant feels are less associated (Greenwald et al., 1998). For example, the concepts of ‘Insect’ and ‘Bad’ tend to be more strongly associated than ‘Insect’ and ‘Good’.

The IAT consists of both practice and test blocks. The practice blocks are designed to familiarise participants with the concepts; only the test block performance is scored. The IAT comprises five steps or blocks, of which blocks three and five provide the critical data that are scored (Nosek, Greenwald, & Banaji, 2005).

The following text provides a more detailed explanation of the steps in a computer based IAT.

Step 1: Learning the concept dimension. Participants sort elements from two different concepts in relation to the target using two computer keys (D and K) on the left and right side of the keyboard (e.g. ‘D’ for ‘thin’ and ‘K’ for ‘thick’). Target terms appear on both sides of the computer screen. The attribute words appear in the middle of the screen between the two target terms (Nosek et al., 2005). See Figure 3.

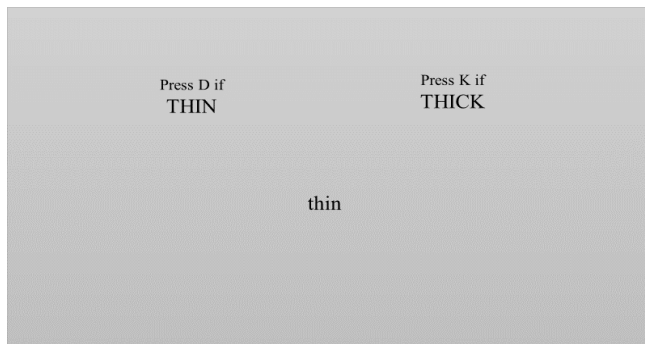


Figure 3. Learning the concept dimension.

Step 2. Learning the attribute dimension. This is the same task as in step 1, but participants must now sort items that represent two poles of an attribute dimension (e.g. ‘terrible’ for ‘bad’, and ‘wonderful’ for ‘good’). See Figure 4.

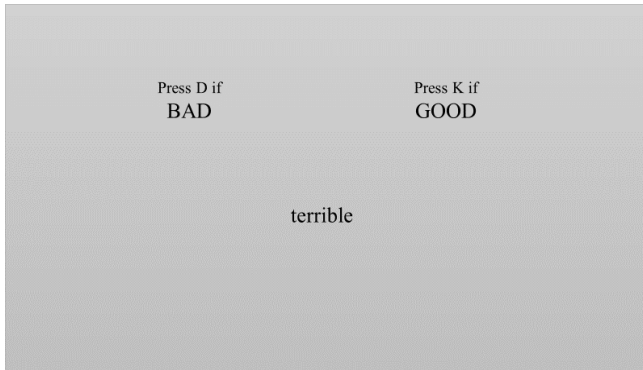


Figure 4. Learning the attribute dimension

Step 3. Concept–attribute pairing. Steps 2 and 3 are now combined. This means that participants have to categorise attribute words in terms of two combined target words (e.g. ‘slim’ for ‘thin’ or ‘good’) (Nosek et al., 2005). The computer key K is the correct response for the two target categories ‘thin’ and ‘good’, and D is the correct computer key for ‘thick’ and ‘bad’. See Figure 5.



Figure 5. Concept-attribute pairing

Step 4. Learning to switch the spatial location of the concepts. In this step, the target words have swapped places, so that the computer key K now represents attribute words for ‘thick’, and D for ‘thin’ (Nosek et al., 2005). This is the opposite placement to the target locations in step 1. See Figure 6.

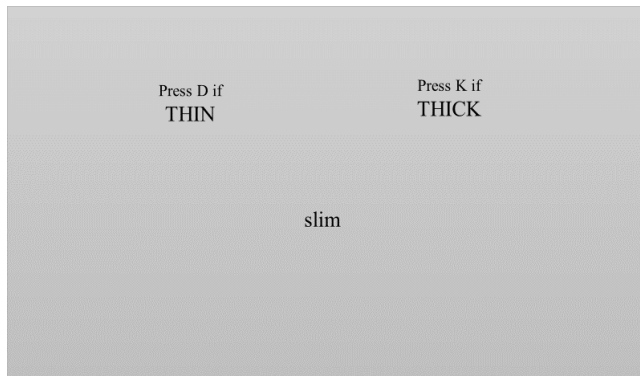


Figure 6. Learning to switch the spatial location of the concepts

Step 5. Concept–attribute pairing. In this step, participants must categorise attribute and target words once more, but with the difference that attribute words are now paired with target terms in the opposite manner to that in step 3, so that, for example, the attribute word ‘fat’ must be categorised with the target words ‘thick’ and ‘good’ (Nosek et al., 2005). See Figure 7.

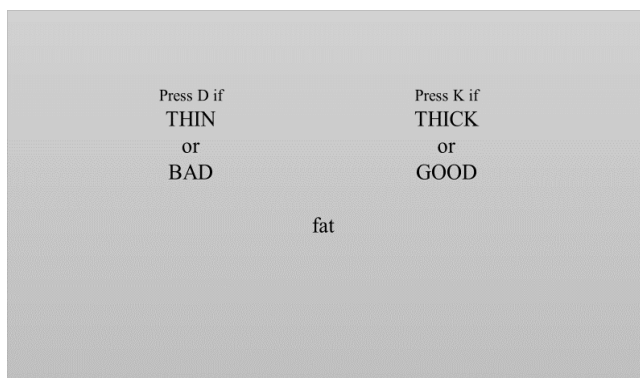


Figure 7. Concept-attribute pairing

As it is important to use IAT words that are representative of the target categories (Mitchell, Nosek, Banaji, & Lindsay, 2003; Nosek et al., 2005), it was necessary to use IAT words that had been used in previous studies. Therefore, to decide which IAT words would be appropriate for our study, a table was constructed that summarised different IAT studies and questionnaires measuring attitudes toward obesity. Eleven relevant articles were identified (Table 3).

TABLE 3. Studies including the implicit association test and explicit questionnaires

Author	Year	Title	Method and Cited
Teachman and Brownell	(2001)	Implicit anti-fat bias among health professionals: is anyone immune?	Paper-pencil IATs (attitudes and stereotypes), explicit feelings about fat versus thin people, demographic variables. Cited: 220 (ISI web).
Schwartz et al.	(2003)	Weight bias among health professionals specializing in obesity	Paper-pencil IATs (attitudes and stereotypes), explicit feelings and beliefs about fat versus thin people, demographic variables. Cited: 260 (ISI web).
Vartanian et al.	(2005)	Implicit and explicit attitudes toward fatness and thinness: The role of the internalization of societal standards	IAT (attitude), explicit beliefs and attitudes related to body weight, Restraint scale (eating habits), demographic variables. Cited: 75 (Google scholar).
Schwartz et al.	(2006)	The influence of one's own body weight on implicit and explicit anti-fat bias	IATs (attitudes and stereotypes), 3 explicit scales (attitudes and stereotypes), explicit 'Trade of measures' and explicit 'potential moderators', demographic variables. Cited:130 (ISI web).
Roddy et al.	(2010)	Anti-fat, pro-slim, or both? Using two reaction-time based measures to assess implicit attitudes to the slim and overweight	IAT (attractiveness), Implicit Relation Assessment Procedure (IRAP), explicit: AFA questionnaire, Behavioural intention questionnaire (BIQ), General information questionnaire (GIQ), demographic variables. Cited: 14 (ISI web).
Sabin et al.	(2012)	Implicit and explicit anti-fat bias among a large sample of medical doctors by bmi, race/ethnicity and gender	IAT (attitudes), explicit preferences for fat versus thin people, demographic variables. Cited: 41 (ISI web).
Waller et al.	(2012)	Assessing bias against overweight individuals among nursing and psychology students: An implicit association test	IAT (attitudes and stereotypes). Cited: 9 (ISI web).

Miller et al.	(2013)	Are medical students aware of their anti-obesity bias?	IAT (attitudes), explicit preferences for fat versus thin people, demographic variables. Cited:11 (ISI web).
Phelan et al.	(2014)	Implicit and explicit weight bias in a national sample of 4,732 medical students: The medical student CHANGES study	IAT (attitudes), explicit weight bias as “feeling thermometer”, Anti-fat questionnaire (AFA), demographic variables. Cited:13 (ISI web).
Flint et al.	(2015)	UK adults’ implicit and explicit attitudes towards obesity: A cross-sectional study	IAT (attitudes), explicit: ‘Attitudes toward obese persons’ (ATOP) scale, ‘Beliefs about obese persons’ (BAOP) scale, Anti-fat attitude questionnaire (AFA), Fat phobia scale (F-scale), demographic variables. Cited: 4 (Google scholar).
Jiang et al.	(2017)	Implicit and explicit anti-fat bias among Asian females	IAT (attitudes), explicit ‘Attitudes toward obese persons’ (ATOP) scale, behavioural intention, demographic variables. Cited:0.

IAT = Implicit association test

The well-known study by Schwartz et al. (2003), ‘Weight bias among health professionals specialising in obesity’, was the most-cited study and therefore has a high impact factor in obesity attitude research. Furthermore, the study measured both implicit and explicit attitudes and stereotypes, all of which are important for our study. Schwartz et al. (2003) were inspired by a literature review on bias and discrimination by Puhl and Brownell (2001), which identified stereotypes that captured some of the most common anti-fat beliefs (Schwartz et al., 2003). The same stereotypes were found in a study by Teachman et al. (2003).

Twenty of the words in the Schwartz et al. (2003) study were used (Table 4).

Table 4. Stimulus words used in the implicit association tests

Target words	Attribute words		
Thick people	Fat	Obese	Large
Thin people	Slim	Thin	Skinny
Attribute words for attitudes			
Bad	Terrible	Nasty	Horrible
Good	Wonderful	Joyful	Excellent
Attribute words for stereotypes			
Negative	Lazy	Stupid	Worthless
Positive	Motivated	Smart	Valuable

Other words from their study were not included (e.g. daisy, tulip, daffodil, bugs, roach, mosquito), as these words were only used in practice blocks and it was important not to use too many words to avoid confusing participants. Therefore, the same words were included in both practice and test blocks so that participants were familiar with the words. According to Greenwald et al. (2003), the blocks should have 20 or more matching tasks. In our IATs, the practice blocks consisted of 24 tasks and the test blocks contained 40 tasks. To reduce the task time, and to get participants familiar with the tasks, some of the practice blocks contained only 12 tasks.

Schwartz et al. (2003) used three stereotype IATs (lazy–motivated, stupid–smart and worthless–valuable). As the IAT is quite time consuming, it was decided to combine the three stereotype IATs into one IAT that measured implicit attitudes and one IAT that measured implicit stereotypes to reduce the task time, while using the same words as Schwartz et al. (2003).

It is recommended that practice blocks with changed target positions be placed before the test blocks to avoid task-switching effects (Nosek et al., 2005). A task-switching effect occurs when respondents must constantly switch between different tasks in which categories and words are changed. This may be challenging for participants and could affect latencies, and thus the IAT score

(Mierke & Klauer, 2001; Mierke, Klauer, & Diener, 2003). Therefore, the practice blocks were placed before the test blocks. Furthermore, research has shown that the IAT effect is stronger if the stereotypical blocks (e.g. thick/bad and thin/good) come before the counterbalanced blocks (e.g. thick/good and thin/bad). Therefore, the IATs were counterbalanced between participants, so that the concept ‘thick’ either shared a response key with the positive evaluation first and with the negative evaluation second, or vice versa.

Both the IAT’s were presented with the following introduction:

‘In the next task, you must sort the words by pressing ‘D’ or ‘K’.

Each word that appears on the computer screen should be sorted either to the left side (D-key) or right side (K-key).

The task is simple. Do not be afraid to make mistakes. You can correct errors.

Attention. There are almost 450 keystrokes, so please press the keys as fast as you can’.

At the next page the participants were presented for the target and attribute words to become familiar with the words.

IAT D-scores were calculated as the difference in the average response speed between two blocks divided by the *SD* of the response times from both blocks (Greenwald et al., 2003). D-scores are similar to Cohens’s *d* (Manns-James, 2015), and positive scores were calculated to indicate preferences for thin people over thick people. Greenwald, Nosek and Banaji (2003) recommends to eliminate the data of participants who had more than 10% of response latencies below 300 ms, and the data of participants who had response latencies that were too long (>10.000 ms).

Explicit bias scales

To measure explicit attitudes, the explicit bias scale from the Schwartz et al. (2003) study was used. The scale contained four of the concept pair words used in the IATs. The scale measured participants’ ratings of their feelings about ‘thick people’ and ‘thin people’ in terms of ‘bad versus good’, and their stereotypical beliefs in terms of ‘lazy versus motivated’, ‘stupid versus smart’, and ‘worthless versus valuable’. This scale was appropriate for our study as it measures both attitudes as feelings and stereotypes.

The explicit bias scales were presented with the following instructions:

‘Please click on the number that describes your personal opinion’. This sentence was followed by seven-point semantic differential scales ranging from –3 to 0 to +3. See Figure 8.

Please click on the number that describes your personal opinion		
Thin people		
Bad	-3, -2, -1, 0, +1, +2, +3	Good

Figure 8. An example of the explicit bias scale measuring ‘bad versus good’.

To calculate the explicit ratings, the score on the scale for ‘thick people’ was subtracted from the score on the scale for ‘thin people’ for the four pairs of words (Schwartz et al., 2003, p. 1036). Zero indicated a neutral score, positive scores indicated greater anti-fat bias and negative scores indicated stronger pro-thick bias.

The AFA questionnaire

To measure explicit attitudes, the AFA questionnaire was used; this was developed to measure anti-fat attitudes in the United States (C. S. Crandall, 1994). To select a questionnaire suitable for our study, we conducted the same type of literature review as for the selection of IATs and questionnaires. The AFA questionnaire represents various aspects of anti-fat attitudes, such as prejudice and stereotypes of the controllability of weight, and it also assesses concerns about own weight. The questions were appropriate for our study (C. S. Crandall, 1994), as the aim was to measure attitudes and stereotypes according to the results from Study I. Furthermore, the AFA questionnaire is a well-known questionnaire that has been used in several other studies (Magallares & Morales, 2014; Phelan et al., 2014; Roddy, Stewart, & Barnes-Holmes, 2010; Vartanian, Herman, & Polivy, 2005).

The AFA questionnaire consists of 13 questions divided into three subscales. The first subscale is called *Dislike* (7 questions) and measures whether participants have negative feelings about obese individuals. The second scale, *Fear of fat* (3 questions), measures participants’ concerns about their own weight. The third scale, *Willpower* (3 questions), measures stereotypical beliefs about weight controllability. As in the study by Crandall (1994), we used a Likert scale ranging from 0 (*strongly disagree*) to 9 (*strongly agree*). Higher scores indicate greater anti-fat attitudes.

Vignettes

According to the results from Study I, some of the ICU nurses found it difficult and frustrating caring for obese ICU patients owing to physical challenges and negative attitudes. As described before, attitudes are linked to behavioural

intention and behaviour (Ajzen, 1991), and negative attitudes toward obese patients may affect health care professionals' behaviour (Phelan et al., 2015). It was therefore important to measure ICU nurses' behavioural intentions.

To measure behavioural intentions, several vignettes were designed. Vignettes are short written stories designed to simulate moments from real-life situations (Atzmüller & Steiner, 2010; Gould, 1996). Responses to vignettes can provide an insight into participants' feelings, thoughts, decisions and behaviours in cases where these characteristics may be affected by factors that are challenging to observe or assess (Evans et al., 2015). Vignettes can be very useful, particularly when there are concerns about sensitive topics, as they provide the opportunity to distance the participants from the issue. Furthermore, Gould (1996) suggests that one of the main arguments for using vignettes compared with observation is to prevent the Hawthorne effect (Gould, 1996).

An expert panel consisting of the researcher, one ICU nurse and two experienced researchers who were also nurses designed the vignettes according to the recommendations from Evans et al. (2015). Five vignettes were designed to create a pool from which the best vignettes most suitable for the study could be chosen (Atzmüller & Steiner, 2010). One vignette described a situation in which the ICU nurse had to move a patient to another ward. The choice was between moving an obese patient or a normal weight patient. This vignette was later excluded, as it may have measured factors other than attitudes toward obesity. The vignette described one female and one male patient and did not mention diagnoses. It was decided that there was a possibility that participants would choose patients according to gender and not weight. After some discussion in the research group, four of the vignettes were therefore selected for inclusion in the survey (Appendix 6).

The vignettes were based on experiences in the ICU context and designed to facilitate participants' engagement. They were therefore designed to resemble situations with real patients so that the stories were relevant to participants and they could relate to and engage with them. The stories were written as clearly as possible and using as few words as possible. The vignettes were written in the present tense and a similar structure and narrative progression was followed for all vignettes (Evans et al., 2015). The structure comprised an introduction to the patient that provided the patient's name, age, job title, marital status, weight and diagnosis. The order of the variables varied across the four vignettes.

According to Evans et al. (2015), one should avoid placing the participant in the vignette as a first- or third-person character. Therefore, the vignettes were designed so that the participant featured as a second-person character. Gender and age were balanced across the vignettes, and socioeconomic factors such as job title were designed to be as neutral as possible (Evans et al., 2015).

The patient description was followed by a scenario describing a care situation at the ICU. The first vignette described a scenario in which nurses had to choose between helping an obese patient immediately or talking to a friend who had called them. The second vignette described an obese patient with respiratory

problems. The patient should have been repositioned more than 2 hours ago, and the nurse had not yet had lunch. Participants had to choose between repositioning the patient or going to lunch. The third vignette described an obese patient with sepsis who should have been moved to a bed with a better mattress. The nurses had to choose between moving the patient now or letting someone else do that during the next shift. The last vignette described two different patients, one obese and one underweight; nurses had to choose between them.

The scenario ended with two questions introduced by the text ‘How likely is it that you would do the following?’ Participants were asked if they would help the patient in the vignette immediately or perform other tasks before helping them. As there was a possibility of response biases, one question was formulated such that the intention to help the obese patient immediately, later or not at all produced a high score. The other question was reversed (i.e. the same responses produced a lower score). These answers were then reverse-scored to ensure that the summary scores for all eight behavioural options presented results in the same direction. Higher scores indicated greater intention to help obese patients immediately.

5.3.3 The order of instruments

When combining self-report measures and IATs in one survey, the order of presentation is probably not important (Hofmann et al., 2005; Nosek et al., 2005). However, it has been suggested that order effects may occur; it is therefore wise to consider the order of the measures (Nosek et al., 2005). Therefore, the order of attitude measures (i.e. explicit measurements first or implicit measurements first) was counterbalanced between participants. Moreover, the survey was organised so that the explicit bias scale was always shown before the AFA questionnaire, and the attitude IAT preceded the stereotype IAT. The IAT was also counterbalanced between whether the target word ‘thick’ shared a response key with a positive attribute word first and with a negative attribute word second, or vice versa. The explicit and implicit measures were presented first, followed by the vignettes and then the demographic questions. After counterbalancing, there were four presentations of the same measures. These were presented randomly by the researcher to the participants.

5.3.4 Translation of instruments

As the AFA questionnaire is in English (C. S. Crandall, 1994), it was necessary to translate it into Norwegian (Appendices 7 and 8). The guidelines for translation and cultural adaptation developed by Wild et al. (2005) were used in the translation process. Although these guidelines were developed for the translation and cultural adaptation of patient-reported outcomes, they are highly suitable for translation of other types of instruments. Nevertheless, some small adjustments had to be performed to adapt the guidelines to this study.

Adjustments were made according to key actors involved in the translation process. According to Wild et al. (2005), the project should include one project

manager who coordinates the translation process and one key in-country consultant who manages the process in the target country. In this translation process, the researcher acted as both project manager and key in-country consultant. Two supervisors and the researcher were involved in the translation process.

The guidelines consisted of ten steps: Preparation, forward translation, reconciliation, back translation, back-translation review, harmonisation, cognitive debriefing, review of cognitive debriefing results and finalisation, proofreading and the final report (Wild et al., 2005).

The **first step** consisted of project preparation, which involved obtaining permission from the developer of the AFA questionnaire to translate it into Norwegian (Crandall, personal communication 06.11.2016) (Appendix 9). In the **second step**, the forward translation was conducted. Wild et al. (2005) recommend more than one forward translation; therefore, the project manager carried out the first translation and a professional translator carried out the second translation. Both translators are native speakers of the target language, a feature that is also recommended by Wild et al. (2005).

In the reconciliation phase (**step three**), a translation panel (comprising the project manager and two supervisors) discussed the different translations to resolve discrepancies between the translations and to produce a single forward translation that was ready for back translation. The two translations had few and minor discrepancies, such as how to translate anti-fat attitudes and how to translate 25 pounds. The **fourth step** consisted of a back translation of the reconciled translation into the source language. According to Wild et al. (2005), the back translation is an important phase as it relates to the quality control of the translated text. This is to ensure that the same meaning can be derived when the text is translated back into the source language (Wild et al., 2005). As recommended in the guidelines, a professional translator who is a native speaker of the original language performed the back translation (Wild et al., 2005).

After the back translation, a back-translation review (**fifth step**) was performed of the back translations against the source instrument to identify any discrepancies. This step was performed by the project manager. This step identified only minor issues, such as deciding between the words 'tend' or 'suppose', and 'although' or 'of course'.

The **sixth step** comprised a harmonisation of the translated versions and the source version, and the identified items from step five were discussed with the research group to ensure intertranslation validity (Wild et al., 2005). The revisions were agreed upon by the translation panel.

In **step seven**, a cognitive debriefing was conducted to evaluate the degree of comprehensibility of the translated material (Wild et al., 2005). The cognitive debriefing was conducted as focus group interviews.

Wild et al. (2005) made few recommendations for how to conduct the focus group; therefore, we used some of the recommendations from the WHO (n.a) on 'Pre-testing and cognitive interviewing'. According to Malterud (2012),

recommended methods for conducting focus group interviews differ mainly on how many groups, and how many participants in each group, are required. Wild et al. (2005) recommends five to eight participants and the WHO (n.a.) recommends at least ten participants. Participants should be drawn from the target population (Wild et al., 2005; World Health Organization, n.a.). We decided to include 10 ICU nurses and to conduct interviews in two groups. Practical issues at the ICU determined the use of two interview groups. It was easier to release 5 nurses than 10 nurses from their duties at one time.

The researcher led the interviews and acted as a moderator (Malterud, 2012). The participants were verbally debriefed and given written information about the purpose of the interview. They were informed that the interview was voluntary, anonymous and would be audiotaped. The participants also received a written version of the IAT words, the AFA questionnaire and the vignettes so it could be easier for them to remember the content of the survey. The moderator presented the research topics to be discussed and facilitated the discussion among the participants. The aim was to create an open discussion rather than to achieve an agreement among participants.

The aim of the interviews was to eventually discuss misunderstandings, ambiguities and cognitive equivalence of the translated text in the AFA questionnaire and the IATs. In addition, the interviews were used to gain a deeper understanding of the nurses' perception of the vignettes to clarify if their design was appropriate for an ICU context. Therefore, the interview questions were devised to validate the translation of words and sentences in the IAT test and the AFA questionnaire, and to make sure that the introduction and instructions for the IAT test were understandable. Furthermore, questions were devised to obtain an understanding of the participants' experiences in responding to the vignettes. The questions were designed according to these themes and were constructed to be as clear as possible and to include words that were normally used by the participants to avoid confusion (Krueger & Casey, 2009). Questions were also designed to be as short as possible so that participants could understand the core content of the questions (Krueger & Casey, 2009). The WHO (n.a.) recommends asking participants if there are words or expressions that they do not understand. Therefore, participants were asked the following question in relation to each theme: '*Was there anything that you did not understand or anything that was unclear?*' (Appendix 10).

The discussion flowed as planned and the discussion centred quite closely on the questions, so the moderator did not have to lead participants back to the main questions. The interview was followed up with a debriefing in which the moderator stated that there were no further questions and asked if there was anything the participants wanted to elaborate or ask about.

A review of the cognitive debriefing results and a finalisation were conducted in **step eight**. The results from the focus group interviews were examined against the original versions of the instruments to ensure that the translation was appropriate for a Norwegian context.

A proofread was conducted in **step nine**. The aim was to check for possible errors in spelling and grammar. Wild et al. (2005) recommend constructing in **step ten** a report of the decisions made in the translation process, special issues or problems that emerged. In this final step, the researcher instead described the translation process from step 2 to 7 in a table (Appendix 11).

In addition to the translation of the AFA questionnaire, the words used in the IATs and the explicit bias scale had to be translated into Norwegian, as these materials were in English (Schwartz et al., 2003). These words were translated by the researcher and one of the authors of Study II. The words were translated by the researcher using Google Translate and the Norwegian website Synonymet (Google Translate; Synonymet). These synonyms were later added to a table and a discussion of which words should be used was conducted based on three criteria: the words should be short, a maximum of two to three syllables and should not be perceived as provocative.

5.3.5 Data analysis

Both the quantitative and qualitative analysis will be described in this section.

Quantitative analysis

Statistical analyses were conducted using SPSS 22.0 (SPSS Inc., Chicago, IL, USA). Histograms, Q-Q plots and boxplots were used to visually examine the distribution of scores. Using the histograms, the shape of the distributions was inspected, which was supported by inspecting the normal probability plots in the Q-Q plots (Pallant, 2013). The distribution for the total AFA questionnaire, subscales and explicit bias scales were either positively or negatively skewed, and some deviations were found in the Q-Q plots. These scores were considered nonparametric and were therefore reported as medians and interquartile ranges (IQR). Behavioural intentions, IAT attitudes and IAT stereotype data were considered parametric. These variables were therefore reported as means (*M*) with standard deviations (*SD*). One-sample t-tests, which are used to find the statistical difference between the sample mean and the sample midpoint, were used to assess the differences from the theoretical neutral point of zero for the IAT scores. The Wilcoxon signed rank test, which is a nonparametric test, was used to test the difference in scores from the neutral zero for the explicit bias scales.

Correlation coefficient between all variables were calculated using Spearman's *rho*, which is a nonparametric test for describing the strength and direction of relationships between two variables (Pallant, 2013, p. 133). According to Cohen's suggestions (1988, pp. 79-81), the following guidelines for correlation coefficients were followed: $r = .10$ to $.29$ (small correlation), $r = .30$ to $.49$ (medium correlations) and $r = .50$ to 1.0 . (large correlations).

Cronbach's alpha was used to evaluate internal consistency for the AFA questionnaire and the behavioural intentions.

Spearman's *rho* was used to determine construct validity, by measuring convergent and discriminant validity for all measures of implicit and explicit stereotypes and attitudes. The convergent validity refers to the extent to which two measures capture the same information; therefore, it was determined by measuring correlations between measures expected to correlate, such as all implicit measures, and all explicit measures. Discriminant validity requires that 'a test not to correlate too highly with measures from which it is supposed to differ' (Campbell, 1960, p. 548) and was therefore determined by measuring correlations between measures not expected to correlate, such as implicit versus explicit measures.

It seems that there is no consensus regarding where to set the level of correlation coefficients to define it as convergent validity. Even so, Carlson and Herdman (2012) recommended convergent correlations above $r = .70$, whereas those below $r = .50$ should be avoided. Furthermore, it is important that the convergent correlations be higher than the discriminant correlations. Because there are several factors that can influence the degree of correlations between implicit and explicit attitudes (Hofmann et al., 2005) and because it is difficult to compare correlation results from other studies as they might use different attitude measurements, it is difficult to set a cut of. Because the sample size was relatively small, it was important to see the overall pattern in line with our expectations according to the construct validity described above instead of single p-values or correlation coefficients.

For all analyses, the significance level in the paper for Study II was set at 5%. No corrections were made according to multiple tests, but in the current thesis, a Bonferroni correction for the correlations of 55 measures of attitude/stereotype/intention was calculated to be 0.0009 ($0.05/55 = 0.0009$).

Qualitative analysis

Data from focus group interviews were analysed using thematic analysis following the semantic approach of Braun and Clarke (2006). Thematic analysis is a way of 'finding repeated patterns of meaning across a data set' (Braun & Clarke, 2006, p. 86). This analysis method was chosen for its flexibility, as the method is independent of epistemology and theory (Braun & Clarke, 2006). This was an appropriate method because the aim of the focus group interviews was very concrete, and the overall themes were predetermined. The themes were as follows: 1) The IAT; 2) The AFA questionnaire; 3) The vignettes and 4) General experiences of the survey.

The interviews were transcribed manually by the researcher and imported into the data management software program NVivo 11 (QSR International, 2017). Interviews were transcribed verbatim (i.e. word for word) including repetitions, as in Study I.

Before starting the data analysis process, some important questions had to be considered (Braun & Clarke, 2006). It was necessary to decide whether to use an inductive or a theoretical (deductive) approach to identify themes. A theoretical

approach was chosen because of the researcher's theoretical interest in the issues, which was reflected in the interview aims. Therefore, the process of coding the text was conducted according to the specific research questions (Braun & Clarke, 2006).

Another question related to what constitutes a theme, or what 'size' a theme needs to be (Braun & Clarke, 2006, p. 82). The researcher had to examine the prevalence of the data to decide on appropriate themes. According to Braun and Clark (2006), the creation of themes may not always depend on quantifiable measures; rather, themes must capture important ideas in the text that reflect the research questions. In this case, the overarching themes were chosen in accordance with the issues being investigated, and subthemes were created according to the prevalence of results. As this was a qualitative approach, the prevalence of results was not presented as a quantitative measure, but as 'all nurses' or 'the nurses' (Braun & Clarke, 2006). This pattern was followed through the whole analysis.

It was also important to consider whether a rich description or a detailed explanation of specific aspects within the data should be presented (Braun & Clarke, 2006). As it was important to obtain an understanding of how the nurses perceived the translated text in the survey, detailed explanations were chosen for a group of themes.

Finally, we needed to choose between a semantic or latent level of analysis to identify the themes. A semantic approach was chosen because the purpose of the interviews was to reveal the surface of meanings without going beyond the participants' meanings or interpreting the data (Braun & Clarke, 2006).

The **first phase** in the analysis process was becoming familiar with the data. This process started when the interviews were transcribed manually by the researcher and continued when the text was read. The researcher immersed herself into the data in an active way and read the text several times to become familiar with the content. **Phase two** consisted of generating initial codes. These codes represented some of the most interesting aspects of the data. As the process was theoretically driven, codes were selected according to the research questions. In the **third phase**, themes were searched for. Relevant codes were merged and sorted into themes. These themes were also guided by the research questions. After themes were identified, they were further examined to investigate if they were meaningful or if some could be combined into subthemes. In **phase four**, the themes were reviewed (Braun & Clarke, 2006). This phase consisted of identifying the content of the themes. All the codes were read again, and some themes were combined; other themes were removed if they did not reflect the research questions. In the penultimate phase, **phase five**, the essence of each theme was identified. In addition, the themes were checked to ensure there was no overlap between them and that they were representative of the data (Braun & Clarke, 2006). Finally, in **phase six**, the data analysis process and the results were described.

Thematic analyses is not a linear process, but a process of moving back and forth between different phases (Braun & Clarke, 2006). The researcher moved between each phase, reading the whole text several times, comparing the text to the codes and themes and returning to the text to ensure that the results reflected the qualified ICU nurses' experiences.

5.3.6 Quantitative results

The sample consisted of 80% females and 20% males. The mean age was 46.53 years (range 31-62 years) and the mean length of work experience as qualified ICU nurses was 14.57 years. Nurses' self-perceived weight was 3.33% underweight, 73.33% normal weight and 23.33% overweight.

Description of attitudes, stereotypes and behavioural intentions are described in Table 5. None of the participants were excluded according to the IAT criteria of removing cases. Twenty-nine of the ICU nurses reached 0% too-fast responses (faster than 300ms), and 1 nurse reached 1%. The data analysis of the IAT attitudes and stereotypes indicated that qualified ICU nurses had a preference for thin over thick people. On the explicit bias scales, 'lazy versus motivated' was the only score that was different from zero at a statistically significant level and pointed in a pro-thin direction; ratings on the other explicit bias scales measures were neutral.

The internal consistency was satisfactory for the overall AFA questionnaire and for the subscales 'dislike', 'fear of fat', and 'willpower'. For the AFA questionnaire, the overall score indicated disagreement with the anti-fat statements. Scores on the subscales 'fear of fat' and 'willpower' were clearly higher than on the subscale 'dislike'.

Internal consistency was also found acceptable for the vignettes (behavioural intention). For the behavioural intention the scores pointed in the direction of willingness of helping the obese patient immediately.

Table 5. Attitude scores and internal consistency for the implicit and explicit measures and behavioural intention.

	Median	IQR	Mean	SD	<i>p</i>-value	Cronbach's alpha
Overall AFA questionnaire	2.88	2.27			N.A.	0.89
Dislike subscale	2.07	1.46				0.81
Willpower subscale	3.50	3.17				0.73
Fear of fat subscale	4.50	3.75				0.75
Explicit bias scale:						
Feelings: bad/good	0.00	1.00				
Beliefs: lazy/motivated	1.00	2.00			< 0.001	
stupid/smart	0.00	0.00				
valuable/worthless	0.00	0.00				
Behavioural intentions			5.77	1.15	N.A.	0.78
IAT-attitude			0.75	0.51	< 0.001	
IAT – stereotype			0.51	0.46	< 0.001	

AFA = Anti-fat attitude; IAT = Implicit attitude test; IQR = Interquartile range; SD = Standard deviation; N.A. = not applicable because of no theoretical neutral value; *p*-value = whether median or mean score differs from neutral score of 0 (Wilcoxon signed-rank test or One sample *t*-test).

Table 6. Spearman's *rho* correlation coefficients between measures

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. AFA questionnaire	-										
<i>p</i> -value											
2. AFA Dislike	.88	-									
<i>p</i> -value	.000										
3. AFA Willpower	.84	.64	-								
<i>p</i> -value	.000	.000									
4. AFA Fear of fat	.91	.70	.68	-							
<i>p</i> -value	.000	.000	.000								
5. Explicit bad/good	.51	.52	.44	.40	-						
<i>p</i> -value	.004	.003	.014	.030							
6. Explicit lazy/motivated	.48	.45	.44	.46	.43	-					
<i>p</i> -value	.007	0.12	.016	.010	.018						
7. Explicit stupid/smart	.45	.46	.24	.44	.32	.42	-				
<i>p</i> -value	.013	.011	.211	.015	.088	.021					
8. Explicit worthless/valuable	-.08	-.13	.17	-.09	-.11	.03	.04	-			
<i>p</i> -value	.662	.501	.384	.629	.564	.868	.822				
9. IAT attitude	.33	.29	.40	.24	.38	.14	.33	.00	-		
<i>p</i> -value	.224	.378	.195	.293	.041	.463	.073	1.000			
10. IAT stereotype	.28	.29	.19	.24	.34	.19	.50	-.07	.59	-	
<i>p</i> -value	.346	.274	.184	.439	.067	.306	.005	.743	.001		
11. Behaviour intentions	-.49	-.49	-.24	-.56	-.13	-.21	-.43	.26	-.20	-.40	-
<i>p</i> -value	.006	.006	.207	.001	.500	.260	.018	.170	.304	.030	

Due to multiple tests Bonferroni correction was calculated. To assess correlation between 55 pairs within attitude/stereotype/intention measures, significance level was set to 0.0009. AFA = Anti-fat Attitude questionnaire; IAT = Implicit Association Test, *p*-value = probability value.

The two implicit measures (Spearman's $\rho = 0.59$) were significantly correlated (Table 6). There was also a significant correlation between the AFA subscales (Spearman's $\rho = 0.64\text{--}0.84$) and between the AFA subscales and the AFA questionnaire. After Bonferroni correction with a significance level at 0.0009, there were no significant correlations between the explicit bias scales or between the explicit bias scales and the AFA questionnaire or the AFA subscales. Despite the lack of significant correlations between the four explicit bias scales and the explicit bias scales and AFA questionnaire or subscales, a pattern of Spearman's ρ being between 0.40 and 0.50 was found for almost all explicit variables except for the explicit bias scale 'worthless versus valuable' (Spearman's ρ ; between $-.13\text{--}.17$). The overall pattern followed the expectations, as described in chapter 5.3.5, and the results were therefore interpreted as supporting convergent validity.

Discriminant validity was supported by no correlations between the two measurement instruments (implicit and explicit scales). The evidence for convergent and discriminant validity therefore confirmed the construct validity.

5.3.7 Qualitative results

The results from the focus group interviews indicated four themes: The IAT, The AFA questionnaire, the vignettes and general experiences of the survey.

The IAT

All nurses stated that they had had to read the instructions for the IAT carefully before they started, but once they had started the test, they experienced no problems completing the IATs. They all agreed that the words were easy to understand.

The AFA questionnaire

All the qualified ICU nurses thought that the translation was good and that the questions were clear and easy to understand.

The nurses found the questions to be very direct and stigmatising, but they all agreed that the questions were able to capture attitudes. Some participants felt that the questions were not relevant to nurses and far away from nurses' attitudes.

Participants also discussed the term 'fat'. Some nurses had not noticed the use of term in the AFA questionnaires. Some felt that the term means different things depending whereabouts in Norway it is used. Although the term 'fat' is not commonly used among health care professionals, the participants agreed that the word was acceptable to use in this context.

The vignettes

The participants agreed that vignette I was well-written and easy to understand. Nevertheless, they reacted negatively to the question about choosing between helping the patient and talking to a friend on the phone. They felt that even if the

phone was in one's pocket, it was not acceptable to answer it, particularly if it was not urgent. The ICU nurses recommended that this vignette be revised so that it was clear the phone call was an emergency, or so that the choice was between helping the obese patient or assisting in another ward.

The participants had few comments about vignette II. They felt that it was well-written and depicted a 'real-life' ICU scenario.

There was a consensus among the ICU nurses that vignette III described a real situation that could occur at the ICU. Nevertheless, some nurses felt that it described a lack of resources, whereas others thought that it measured attitudes.

Participants thought that vignette IV was difficult to understand. The nurses had to read it several times to understand it, and they suggested that it be rewritten.

General experiences of the survey

The ICU nurses found participating in the survey to be non-problematic; they reported that it was a novel experience and was even exiting and fun. Furthermore, they felt it was important that they were informed in advance of the time frame of the test.

5.4 Study III

The aim of Study III was to examine qualified ICU nurses' implicit and explicit attitudes toward obese ICU patients and whether their attitudes are associated with their behavioural intentions towards these patients.

5.4.1 Sample and setting

A total of 950 qualified ICU nurses working on 16 different ICU wards at 15 different hospitals in Norway were recruited for the survey using a non-probability consecutive sampling method. Of these, 142 nurses completed the survey, a completion rate of 14.95%. In addition, 22 qualified ICU nurses from a Norwegian Facebook group of ICU nurses completed the survey, providing a total of 164 qualified ICU nurses who completed the survey. The inclusion criteria for all participants were qualified ICU nurses and working at an ICU. Four participants did not meet the inclusion criteria. Furthermore, one duplicate in the Facebook group, were gender, age, weight category and years of work experience as an ICU nurse were identical to one participant in the hospital group was excluded, resulting in 159 qualified ICU nurses included in the study. See Figure 9.

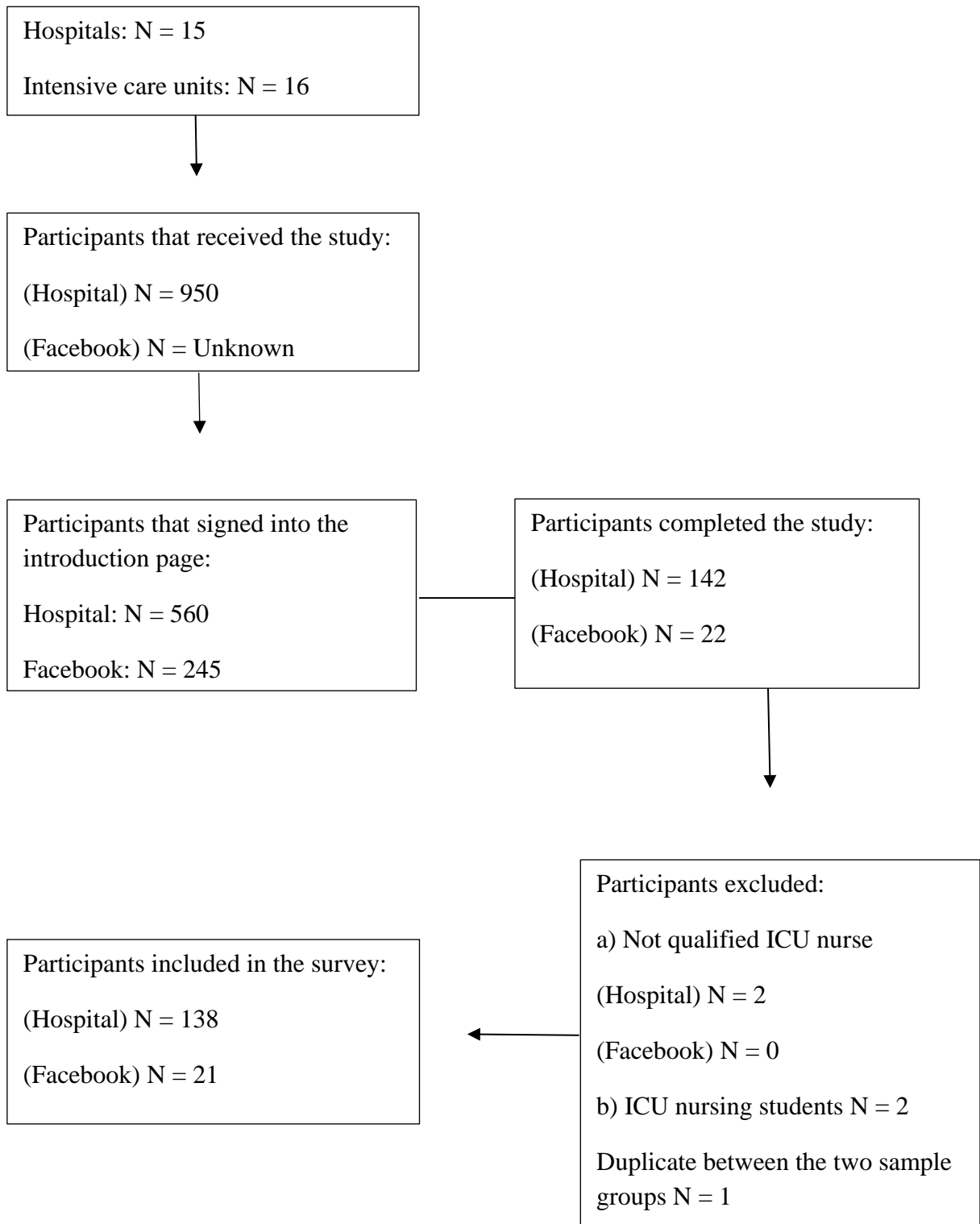


FIGURE 9. Flowchart showing the number of participants in Study III

The nurses recruited from the hospitals were invited to participate via an email from the manager at each ICU ward to all ICU nurses working on the wards. The emails contained information about the study, the anonymity of the participants and included a link to the survey (Appendix 12). The manager at each ICU forwarded two reminder emails 1 to 2 weeks after the first invitation to encourage more nurses to participate. The reminder emails contained a new invitation to participate in the survey and a link to the study survey. The researcher was in dialogue with the managers at each ward via email and received email confirmation when the invitation letters were forwarded to the ICU nurses. In this way, the researcher could verify that reminder emails had been forwarded.

To encourage more nurses to participate, the emails also stated that each participant would have the opportunity to win a gift certificate of 500 NOK (one for each ward) to be redeemed in a bookstore. After the survey was completed, each ICU manager received a gift certificate and awarded this to one of the nurses who had completed the survey.

To recruit more nurses to the study, an invitation to participate in the survey was posted to the Facebook group of The Norwegian Association of Critical Care Nurses (Norwegian acronym: NSFLIS). This invitation was designed by the Media department at the University of Agder to ensure that the content and design were professional. The posted text contained information about the study and a link to the survey; nurses were encouraged to share the text (Appendix 13). Reminder notes were posted 5 days and 1 month after the initial invitation.

In Norway, there are four regional health authorities divided into geographical areas. To ensure a representative sample, one or two major ICUs and several smaller ICUs were selected from each region. The selection was designed so that the sample contained a range of general, medical and surgical ICUs to ensure that participants had experience in caring for different types of ICU patients. The hospital used in Study II was not included in Study III, as the Study II participants were familiar with the survey.

5.4.2 Data collection

Study III was run between October 2017 and January 2018 as a web-based survey programmed in Unipark/Questback (Unipark/Questback). The survey took 20.5 minutes (SD = 7.15; range 13.00-53 minutes) to complete.

Study III was based on Study II, and some revisions were made according to the IAT, the AFA questionnaire and the vignettes from Study II. These changes are described below.

Instruments

The following variables were measured:

- 1) Implicit attitudes and stereotypes using IATs;
- 2) Explicit attitudes using the Anti-fat Attitude (AFA) questionnaire and explicit bias scales to assess participants' feelings and beliefs about thick and thin people;
- 3) Behavioural intentions using vignettes presenting short workplace scenarios.

Demographic data on sex, age, years of experience as an ICU nurse, education and participants' self-perceived weight (very underweight, underweight, normal weight, overweight, very overweight) were also assessed in the survey. For the survey posted on Facebook, a question about nurses' workplace was included to avoid including ICU nurses working at other places.

The participants were also given the opportunity to write a comment about the study.

The following sections describe the instruments in more detail.

The IAT

Owing to strict data security regulations at the hospitals, using plugins in computer program; these are normally required to measure response times in milliseconds in IATs was not permitted. Furthermore, it was not permitted to use memory sticks in the hospitals (as had been used in Study II). Therefore, the IATs for Study III were programmed as a computer-based paper-and-pencil test that did not measure response times in milliseconds. Paper-and-pencil IATs are normally designed for paper use, and participants mark their responses with a pencil. Participants have a certain amount of time to mark as many words as possible. Data from paper-and-pencil IATs have been found to be similar to results from computer-based IATs; thus the former tests are useful when it is not possible to use computer-based IATs (Lemm, Lane, Sattler, Khan, & Nosek, 2008).

In this study, we transformed a paper-and-pencil test into a computer-based version. The differences between the paper-and-pencil test and the computer-based test in this study were that the participant task was on a computer screen instead of on paper, participants used a keyboard instead of a pencil and the time was measured by the computer rather than by a person. The response time measures were also different than for regular computer-based IATs. Participants were given 60 seconds to complete one task and the score was based on the number of marked words. The score was calculated using the '*product: square root of difference*'. This scoring algorithm is recommended by Lemm et al. (2008). The square root of the difference between the number of items completed between two blocks (compatible blocks, e.g. thin and good, and non-compatible blocks, e.g. thick and good) was multiplied by the ratio of items completed (Lemm et al., 2008). As in Study II, higher scores indicated preferences for thin over thick people.

The IATs were designed with one column of attribute words on the left side of the computer page. The target words were presented at the top of the right-hand columns. The respondent's task was to mark under the target words according to which of the attribute words was most associated with the target words to indicate the appropriate category (Lemm et al., 2008). See Figure 10.

	THICK	THIN
obese	<input type="radio"/>	<input type="radio"/>
fat	<input type="radio"/>	<input type="radio"/>
large	<input type="radio"/>	<input type="radio"/>
thin	<input type="radio"/>	<input type="radio"/>
slim	<input type="radio"/>	<input type="radio"/>
skinny	<input type="radio"/>	<input type="radio"/>
obese	<input type="radio"/>	<input type="radio"/>
fat	<input type="radio"/>	<input type="radio"/>
large	<input type="radio"/>	<input type="radio"/>
thin	<input type="radio"/>	<input type="radio"/>
slim	<input type="radio"/>	<input type="radio"/>
skinny	<input type="radio"/>	<input type="radio"/>

Figure 10. An example of a practice block from Study III with the target words THICK and THIN.

The attitude IAT started with the following introduction:

‘In the next tasks, you will have to sort words. Each word that appears on the screen should be sorted either to the left or to the right side.

These words will be used (before proceeding, carefully read the list):

THICK: obese, fat, large

THIN: thin, slim, skinny

BAD: terrible, nasty, horrible

GOOD: wonderful, joyful, excellent’

For the stereotype IAT, the same introduction appeared, but the following words were presented:

THICK: obese, fat, large

THIN: thin, slim, skinny

WORTHLESS: lazy, stupid, worthless

VALUABLE: motivated, smart, valuable

Practice or test blocks were presented on one page at a time. The participants were given 60 seconds to categorise as many attributes as possible in the test

blocks. The practice blocks consisted of 12 or 24 attribute words and the participants had ample time to complete them. The test blocks consisted of 48 words. For an example of a test block, see Figure 11.

	THICK/GOOD	THIN/BAD
obese	<input type="radio"/>	<input type="radio"/>
fat	<input type="radio"/>	<input type="radio"/>
large	<input type="radio"/>	<input type="radio"/>
thin	<input type="radio"/>	<input type="radio"/>
slim	<input type="radio"/>	<input type="radio"/>
skinny	<input type="radio"/>	<input type="radio"/>
obese	<input type="radio"/>	<input type="radio"/>
fat	<input type="radio"/>	<input type="radio"/>
large	<input type="radio"/>	<input type="radio"/>
thin	<input type="radio"/>	<input type="radio"/>
slim	<input type="radio"/>	<input type="radio"/>
skinny	<input type="radio"/>	<input type="radio"/>
	THICK/GOOD	THIN/BAD
terrible	<input type="radio"/>	<input type="radio"/>
nasty	<input type="radio"/>	<input type="radio"/>
horrible	<input type="radio"/>	<input type="radio"/>
wonderful	<input type="radio"/>	<input type="radio"/>
joyful	<input type="radio"/>	<input type="radio"/>
excellent	<input type="radio"/>	<input type="radio"/>
terrible	<input type="radio"/>	<input type="radio"/>
nasty	<input type="radio"/>	<input type="radio"/>
horrible	<input type="radio"/>	<input type="radio"/>
wonderful	<input type="radio"/>	<input type="radio"/>
joyful	<input type="radio"/>	<input type="radio"/>
excellent	<input type="radio"/>	<input type="radio"/>
	THICK/GOOD	THIN/BAD
obese	<input type="radio"/>	<input type="radio"/>
fat	<input type="radio"/>	<input type="radio"/>
large	<input type="radio"/>	<input type="radio"/>
thin	<input type="radio"/>	<input type="radio"/>
slim	<input type="radio"/>	<input type="radio"/>
skinny	<input type="radio"/>	<input type="radio"/>
obese	<input type="radio"/>	<input type="radio"/>
fat	<input type="radio"/>	<input type="radio"/>
large	<input type="radio"/>	<input type="radio"/>
thin	<input type="radio"/>	<input type="radio"/>
slim	<input type="radio"/>	<input type="radio"/>
skinny	<input type="radio"/>	<input type="radio"/>
	THICK/GOOD	THIN/BAD
terrible	<input type="radio"/>	<input type="radio"/>
nasty	<input type="radio"/>	<input type="radio"/>
horrible	<input type="radio"/>	<input type="radio"/>
wonderful	<input type="radio"/>	<input type="radio"/>
joyful	<input type="radio"/>	<input type="radio"/>
excellent	<input type="radio"/>	<input type="radio"/>
terrible	<input type="radio"/>	<input type="radio"/>
nasty	<input type="radio"/>	<input type="radio"/>
horrible	<input type="radio"/>	<input type="radio"/>
wonderful	<input type="radio"/>	<input type="radio"/>
joyful	<input type="radio"/>	<input type="radio"/>
excellent	<input type="radio"/>	<input type="radio"/>

Figure 11. Example of a test block with the target words THICK/GOOD and THIN/BAD

The IATs started with a practice block of 12 THICK/THIN attribute words with ample time to complete the task. This was followed by a practice block of 12 BAD/GOOD attribute words with ample time to complete the task. Then followed a practice block of both THICK/BAD and THIN/GOOD attribute words (24 words) with 60 seconds of time for completion. This was followed by a test block of both THICK/BAD and BAD/THIN (48 attribute words; 60 seconds completion time). A new practice block was then presented with 12 GOOD/BAD attribute words, followed by another practice block with 24 THICK/GOOD and THIN/BAD attribute words (60 seconds). The test block consisted of 48 THICK/GOOD and THIN/BAD attribute words (60 seconds completion time). Finally, one practice block consisting of 12 BAD/GOOD attribute words followed by 24 THICK/BAD and THIN/GOOD words was presented. The attitude IAT ended with a test block of 48 THICK/BAD and THIN/GOOD attribute words.

The blocks in the stereotype IAT had the same structure and timing as those in the attitude IAT but contained different attribute words.

The AFA questionnaire

The introduction to the AFA questionnaire was revised according to the results from the Study II focus group interviews. The nurses found the language in the questionnaire direct and felt that it could be stigmatising. To avoid provoking participants, an explanation of the translation and the language used was presented at the beginning of the questionnaire:

'Here are some questions. The questions are from a published American questionnaire, which has been widely used in research and translated into Norwegian. Some of the sentences have been directly translated to retain their meaning. You may feel that the language is strong and direct, but this was necessary for methodological reasons.'

The vignettes

Two of the vignettes were revised before conducting Study III according to the results from the focus group interviews in Study II. One vignette (vignette I), which described a scenario in which nurses had to choose between helping an obese patient immediately or talking to a friend calling on the phone, was revised so that participants had to choose between helping the patient immediately or helping with a technical problem in the ward. Another vignette (vignette IV) was revised because the participants found it difficult to understand. The vignette was shortened by removing redundant sentences and single words. Furthermore, we revised one vignette (vignette III) to be more precise. Instead of 'lack of staff' we revised it to 'more organization' (Appendix 14).

5.4.3 Order of instruments

The survey was computed with the same 4 presentation orders as in Study II. These were presented randomly to the participants. The only differences according to order of instruments between Study II and Study III was that the Unipark/Questback server selected one of the 4 conditions at random instead of the researcher as in Study II.

5.4.4 Data analysis

As in Study II, statistical analyses were conducted using SPSS 22.0 (SPSS Inc., Chicago, IL, USA). To ensure the appropriateness of collapsing the two samples of participants from hospitals and Facebook, the chi-squared test for categorical variables and the Welch's unequal variance *t*-test for continuous variables were used. As the two samples revealed comparable results, they were collapsed into a single sample.

All variables were visually inspected to examine the score distributions using histograms, Q-Q plots and boxplots. The same inspections as in Study II were conducted. The IAT attitude and IAT stereotype and explicit bias scale 'smart versus stupid' were considered parametric. The other measures were considered as having a positively skewed distribution; hence, these variables were considered nonparametric.

Even though not all the variables were considered as parametric, the results were presented as mean and 95% confidence intervals because of the sample size; this is in line with the trend of reporting results found in current attitude research. Therefore, all statistical tests were chosen according to parametric variables. Most parametric techniques are considered robust or tolerant even if the variables are not normally distributed and if the sample size is > 30 (Pallant, 2013).

For the IAT attitudes and stereotypes, and the explicit bias scales, the differences from the neutral midpoint zero were tested using the one-sample *t* test.

Differences in gender according to attitudes and behavioural intention were tested using Welch's unequal variance *t*-test. Differences in nurses' self-perceived weight according to attitudes and behavioural intentions were tested using Welch's ANOVA. Welch's test was used because of differences in group size among gender and self-perceived weight because this test is considered more robust and less sensitive for differences in group size and does not assume similar variances (Field, 2018).

Correlation coefficients between measures were examined using Pearson's *r* for all attitude variables, behavioural intentions, age and years of work experience as an ICU nurse.

To test whether implicit and explicit attitudes were associated with ICU nurses' behavioural intentions (according to research question c), a linear regression model in two steps, which is also labelled as hierarchical regression – with implicit and explicit attitudes and sex, self-perceived weight and years of work experience as the independent variables and behavioural intention as the

dependent variable – was conducted. The implicit independent variables consisted of implicit attitudes and stereotypes. The explicit independent variables consisted of the AFA total score and the four explicit bias scales collapsed into one variable. The collapsed scale was based on the results from Cronbach's alpha (0.58).

Owing to strong correlations between age and years of work experience as an ICU nurse (Pearson $r = 0.75$) only work experience as an ICU nurse was included in the model. It was expected that work experience as an ICU nurse could be a more important independent variable than age because years of work experience could have an impact on behavioural intentions.

A preliminary analysis was conducted to ensure no violation of the assumptions of outliers, normality, linearity, multicollinearity, homoscedasticity and singularity (Pallant, 2013). There were no major deviations from normality as the points lied in a reasonably straight diagonal line in the probability plot. Furthermore, the residuals were rectangularly distributed (scatterplot), and there were no outliers. There was no issue with multicollinearity because none of the independent variables had a correlation coefficient of $r = .9$ or above. Furthermore, we collapsed the explicit bias scales and used the AFA questionnaire instead of its subscales to avoid problems of singularity because including both subscales and total scales in a regression model is not appropriate (Pallant, 2013).

For the first step, the demographic variables were put in the model to remove their effect, and in step 2, implicit and explicit attitudes were entered into the regression.

The results are presented as unstandardized regression coefficients.

The significance level was initially set to 5% for all analyses, but because of the use of multiple statistical tests, the Bonferroni correction was applied for all correlation coefficients. The significance level for 11 measures of associations of attitude/stereotype/intention, age and/or years of work experience as an ICU nurse was set at 0.0045 ($0.05/11 = 0.0045$). The significance level for 55 measures of attitude/stereotype/intention measures was set at 0.0009 ($0.05/55 = 0.0009$).

5.4.5 Results

Due to occasionally missing answers case numbers have small variations. The sample consisted of 84.3% females and 13.8% males. The mean age was 45.52 years and the mean length of work experience as qualified ICU nurses was 12.76 years. Nurses' self-perception of weight was 1.3% underweight, 78% normal weight, 17.6% overweight and 2.5% very overweight.

Description of attitudes, stereotypes and behavioural intentions are described in Table 7. The data analysis of the IAT attitudes and stereotypes indicated that the qualified ICU nurses had a preference for thin over thick people. On the explicit

bias scales, ratings for ‘bad versus good’, ‘lazy versus motivated’ and the collapsed scale, differed from zero at a statistically significant level.

For the AFA questionnaire, the nurses score on ‘fear of fat’ and ‘willpower’ were clearly higher than scores on the subscale ‘dislike’.

Scores for behavioural intentions indicated a willingness to help the obese patient immediately.

There were some differences in attitudes according to gender but not according to ICU nurses’ self-perceived weight. Male nurses reported higher scores on the AFA willpower subscale than female nurses (mean = 4.74–2.96, respectively). Furthermore, the participant’s age was negatively correlated with ‘lazy versus motivated’ (Pearson $r = -0.29$).

There was no statistically significant correlation between IAT attitudes and IAT stereotypes. A positive significant correlation was found between the scores on some of the explicit measures, for example, the AFA questionnaire and two of the explicit bias scales (‘bad versus good’; $r = 0.36$, and ‘lazy versus motivated’; $r = 0.30$). There were no significant correlations between implicit and explicit measures.

No implicit or explicit measures were significant correlated with behavioural intentions.

Table 7. Attitude scores and internal consistency for the implicit and explicit measures and behavioural intention

	Mean	95 % CI	<i>p</i>-value	Cronbach's alpha
Overall AFA questionnaire	2.03	1.82, 2.24	N.A.	0.81
Dislike subscale	1.08	0.91, 1.26	N.A.	0.74
Willpower subscale	3.22	2.88, 3.56	N.A.	0.81
Fear of fat subscale	3.09	2.70, 3.49	N.A.	0.86
Explicit bias scale:				
Feelings: bad/good	0.50	0.32, 0.68	< 0.0001	
Beliefs: lazy/motivated	0.39	0.21, 0.58	< 0.0001	
stupid/smart	0.30	-0.09, 0.15	0.59	
valuable/worthless	-0.80	-0.21, 0.54	0.24	
Explicit bias scale collapsed	0.19	0.09, 0.29	< 0.0001	0.58
Behavioural intentions	6.03	5.90, 6.17	N.A.	0.73
IAT-attitude	2.00	1.42, 2.60	< 0.0001	
IAT – stereotype	0.72	0.19, 1.24	0.008	

AFA = Anti-fat attitude; IAT = Implicit attitude test; CI = Confidence interval; N.A. = not applicable because of no theoretical neutral value; *p*-value = probability value of whether mean score differs from neutral score of 0 (one sample *t*-test).

For the regression analysis, neither implicit nor explicit attitudes and stereotypes were associated with behavioural intention. Male gender was associated with 0.46 less intention to help the obese patient immediately (Table 8).

Table 8. Unstandardized regression coefficients from linear regression analysis for the associated factors of behavioural intention

	Step 1 (R ² = .07)		Step 2 (R ² = .09)	
	B	95 % CI for B	B	95 % CI for B
Men [†]	-0.52**	-0.89, -0.14	-0.46*	-0.86, -0.05
Years of work as intensive care nurse	0.004	-0.01, 0.02	0.00	-0.02, 0.02
Weight stature	-0.23	-0.49, 0.04	-0.24	-0.52, 0.04
IAT attitude			0.02	-0.2, 0.06
IAT stereotype			0.01	-0.04, 0.05
AFA main scale			-0.04	-0.16, 0.07
Explicit bias scale collapsed			-0.14	-0.38, 0.10

Notes

* $p < .05$, ** $p < .01$. [†]compared to women (women = 1, men = 2).

Abbreviations: CI = confidence interval, IAT = implicit association test; AFA = Anti-fat Attitude Questionnaire; Weight stature = self-reported as 1. very underweight, 2. underweight, 3. normal weight, 4. overweight, or 5. very overweight. R² = R square

6.0 SUMMARY OF RESULTS

The sample from all three studies consisted of qualified ICU nurses with approximately the same mean age (in years) and mean length of time working as qualified ICU nurses. The gender distribution was also approximately similar in Study II and Study III (80% and 84.3% females, respectively), as well as the ICU nurses' self-perceived weight (underweight 3.33% and 1.3 %, normal weight 73.33% and 78%, overweight 23.33% and 17.6 %, respectively, and 2.5 % very overweight [Study III]).

The ICU nurses experienced it as emotionally demanding caring for obese ICU patients owing to the patient's vulnerability, dissimilarity and physical challenges (Study). The nurses experienced an ambivalence between the endeavour of providing equal care to all patients and simultaneously holding negative attitudes and beliefs.

The Study II results revealed that the measures were reliable and valid tools for measuring ICU nurses' attitudes and behavioural intentions. The correlation pattern supported convergent and discriminant validity.

The ICU nurses reported preferences for thin over thick people according to implicit attitudes and stereotypes in Study II and Study III. Furthermore, in all three studies they reported explicit anti-fat attitudes and stereotypes; negative attitudes were prevailing at the ICU (study I), thick people were reported as worse ('bad versus good') (Study III), and being more lazy and with less willpower than thin people (Study II and III). For the AFA questionnaire, nurses reported higher scores in a pro-thin direction on the subscale 'willpower' and 'fear of fat' than on 'dislike' (Study II and III).

The nurses endeavoured to provide good and equal care to all patients despite their weight (Study I) and reported a willingness to care for obese patients immediately (Study II and Study III). Neither implicit nor explicit attitudes were associated with behavioural intention (Study III). However, male gender was associated with behavioural intention. The belief that obesity is self-inflicted combined with the heavy workload, resulted in nurses questioning if obese patients were entitled to the same treatment as normal weight patients (Study I).

According to the demographic variables, male nurses reported higher scores on the AFA willpower subscale than female nurses, and the participant's age was negatively correlated with 'lazy versus motivated' (Study III).

Taken together, the qualified ICU nurses' experiences and reported attitudes, stereotypes, beliefs and willingness to care for obese ICU patients were characterised by ambivalence and contradictions.

7.0 ETHICS

The three studies were conducted in accordance with the guidelines of the Norwegian National Research Ethics Committees and the principles of the Declaration of Helsinki regarding respect, no harmful consequences of participation, fairness and integrity (The Norwegian National Research Ethics Committees, 2014).

An application for approval from the Regional Committees for Medical and Health Research Ethics (REC) (Remit assessment form 2015/1656) was not necessary, as the purpose of the project was not to acquire new knowledge about health, illness, diagnostics or treatment (Appendix 15).

Approval for the whole project was gained from the Norwegian Centre for Research Data (NSD) (45606/HIT) (Appendix 16). During the research process, the number of participants in Study II changed. A change request form to increase the number of participants from 10 to 30 was approved by the NSD (Appendix 17). The hospital research departments and the ICU clinical leads gave permission to conduct Study I and Study II (Appendices 18-19). For Study III, different approval procedures at each hospital were followed. Some hospitals only requested permission from the ICU leads, and some hospitals requested permission from the hospital research departments, the management of the whole clinic and the ICU leads. Finally, some hospitals requested permission from the research departments and ICU leads. Approval was obtained either verbal or in written form from all hospitals. Due to these different procedures among the hospitals, several e-mails have been written and received to obtain permission. The large number of e-mails made it impossible to attach as appendices in the thesis.

For the recruitment of participants from the Facebook group of ICU nurses in Study III, a new change request form was applied for and approved by the NSD (Appendix 20).

Permission to translate the AFA questionnaire was obtained from the developer (Crandall, personal communication, 06.11.2016) (Appendix 9).

All participants in the three studies received written information about the study, and participants in Study I and Study II also received verbal information about the study. The verbal and written information included a description of the aim of the studies, the voluntary nature of participation, anonymity and the possibility of withdrawing from the study (Appendices 2 and 4). The first page in the survey in Study II and Study III also described the aim of the studies and voluntary nature of participation, anonymity and the possibility of withdrawing from the survey. Data materials, such as written notes from the Study I, the audio recordings of interviews from Study I and Study II and the memory sticks used in Study II, were all stored in a locked drawer.

Data from Study III were stored at Unipark/Questback (Unipark/Questback) and were anonymised so that it was not possible to obtain personally identifiable information about the participants.

As it was expected that some participants would not wish to report their self-perceived weight, nurses were informed that this question was voluntary.

8.0 DISCUSSION OF METHODS

In this chapter methodological issues according to the three studies are discussed.

8.1 Study design

The use of a design based on the sequential 'QUAL → quan' multimethod (Morse, 2003) has strengthened the overall thesis. Conducting one qualitative and two quantitative studies sequentially has provided a broader and more comprehensive picture of ICU nurses' attitudes toward obesity. Morse (2003, p. 205) described multimethod as obtaining different 'levels of data'. A multimethod design is suitable for research that comprises several associated projects and that aims to obtain a more complete and broad picture of human experience and behaviour (Morse, 2003). The current research on ICU nurses' attitudes toward obese patients is a good example of this type of project.

Despite the strength of the design, some issues require reflection. First, although the three studies complemented each other, the project was characterised by a scientific dichotomy, as designs had both inductive and deductive approaches and were used from two opposing paradigms with different epistemological and ontological views. Positivist and interpretative paradigms have different epistemological and ontological views and are contradictory approaches to the investigation of the nature of reality and how we can understand it. Therefore, it is important to be aware that despite the use of a multimethod design, each study was independently conducted according to its methodological stance according to Morse (2003). The structure of each study, and the data analysis, followed guidelines appropriate to the method chosen for that individual study.

Furthermore, the appropriate epistemological and ontological perspectives underlying each method have been adopted. This dichotomy between the two different approaches became apparent during the process of summarising the overall results. It was challenging to try to merge results from two scientific paradigms with different views of the nature of reality or truth and how this should be measured. One study used a qualitative approach in which the data were interpreted. In contrast, two studies used a quantitative approach incorporating statistical analyses of the data. To resolve this contradiction, the overall interpretation of the study results is based on the broad patterns and directions of the data for each study. However, some comparisons of specific aspects of the results are also presented according to the two quantitative studies.

Inductive and deductive approaches are strongly linked with epistemology, or the way people acquire knowledge; there may be both advantages and disadvantages in the use of these approaches. When using an inductive approach, there may be some risks in collecting single facts and trying to generalise these facts because one may miss the underlying structure or situations (Alvesson & Sköldbäck, 2009, p. 3). Furthermore, the philosopher David Hume (1789), known for the problem of induction, described this problem as one not being able to base a prediction of the future on past experiences. However, for Study I, the underlying structures and situations of caring for obese ICU patients was an important part

of the nurses' experiences. The nurses gave deep and rich details about their experiences. Therefore, in this case, an inductive approach was found appropriate.

On the other hand, deductive approaches are said to be less risky if the premises of the theory are correct (Alvesson & Sköldbberg, 2009). However, one of the most common weaknesses of this approach is if the results are overrun by the theory (Kvale, 2007). In other words, if all the variables are expected to have the same meaning for all the participants based on the theory and if this is not questioned, one runs the risk of missing important details (Malterud, 2013). For Studies II and III, the TPB was used as the theory to understand the possible association between attitudes and behavioural intention. According to the TPB there are various beliefs which can be linked to behavioural intention (Ajzen, 1991). These beliefs may be different for each individual and are not expected to have the same meaning for all participants.

A cross-sectional design for Study II and Study III were chosen. In such designs, data are collected at one time point and therefore cannot be used to infer causality (Veierød, Lydersen, & Laake, 2012). Nevertheless, a cross-sectional approach has the advantage of time efficiency (which was important in this project) and has the possibility of incorporating multiple variables; it can also measure associations between exposures and outcomes (Veierød et al., 2012). Thus, this design was appropriate to investigate the associations between attitudes, behavioural intentions and demographic variables.

8.2 Sample recruitment and participant attrition

The recruitment of participants for the three studies was challenging, and some of the issues involved are discussed below.

In Study I, the goal was to recruit 15 qualified ICU nurses. This was challenging owing to the fact that the wards were very busy. We finally managed to recruit 14 qualified ICU nurses, which we considered an appropriate sample size with which to collect rich data. To the researcher's knowledge, there are no rules regarding sample size in qualitative studies (Brinkmann & Kvale, 2015; Polit & Beck, 2012; Sandelowski, 1995), but Brinkmann and Kvale (2015) recommend 15+/-10 participants. This recommendation is not very informative, and the most important issue is to have a sample size that is appropriate for the aim of the project (Brinkmann & Kvale, 2015; Sandelowski, 1995). Furthermore, the sample size should not be so large that details in the data are missed (Sandelowski, 1995). Some recommend that the sample size should be guided by data saturation, which means that data collection should continue until there is no new information from the participants (Polit & Beck, 2012). It is argued that the term 'saturation' is inconsistently applied because the term is connected to the grounded theory. It is hence suggested that 'information power' is a better term in qualitative research for guiding the sample size (Malterud, Siersma, & Guassora, 2016). One issue to consider when achieving strong information power is related to the study's aim. A larger sample size is required to obtain

information power if the study's aim is broad (Malterud et al., 2016). In Study I, it could be argued that the study's aim was broad because ICU nurses' experiences in caring for obese ICU patients could include a range of experiences in various directions, thereby requiring a larger sample size.

The quality of the dialogue between the researcher and the participant is also important when establishing strong information power (Malterud et al., 2016). Because the researcher was familiar with the ICU context and had knowledge about obesity and obese patients, the communication was perceived as good, and the ICU nurses shared their experiences with the researcher, giving rich and detailed information about their experiences in caring for obese ICU patients. Malterud et al. (2016) argued that a high-quality interview dialogue requires fewer participants compared with an interview with difficulties in the dialogue process. The sample size was found sufficient to answer the aim of the current study because of the good quality of the interview dialogue, even with the broad aim.

According to Malterud et al. (2016) a sample with characteristics that are specific for the study's aim requires less participants than participants with less specificity. The participants in Study I were all ICU nurses with experiences in caring for obese ICU patients and thereby had characteristics specific for the study's aim.

During one interview in Study I, it became apparent that one participant had only worked as an ICU nurse for 1 year. This meant that this participant did not meet the inclusion criteria and the participant was therefore excluded from the study after the interview. As this information was discovered during the interview, it did not feel appropriate to cancel the interview at the time. The interview was transcribed with the rest of the interviews to determine if the data yielded any new or additional meanings that deepened the understanding of the ICU nurses' experiences. We did not find anything new and therefore there were no problems excluding these data, which also is an argument for the strong information power in Study I.

Recruiting participants for Study III was also challenging; in addition, the rate of survey completion was low. There were approximately 950 qualified ICU nurses in the hospitals that received the Study III survey. A total of 560 nurses opened the link; if they had all completed the survey, this would have resulted in a completion rate of 58.95%, which would have been very satisfactory. However, only 142 ICU nurses from the hospitals completed the survey, giving a completion rate of 14.95%. Many ICU nurses dropped out after reading the introduction page; some completed some of the tasks but did not complete the whole survey. A total of 245 nurses from the Facebook group opened the survey and 22 completed it, giving a completion rate of 9%.

The work of healthcare professionals is expected to be evidence based (Erichsen, Røkholt, & Utne, 2016; Jamerson & Vermeersch, 2012; Stortingsmelding 10 (2012-2013), 2012), and 'competence building, quality improvement and development of new knowledge are rooted in the nursing profession' (Norsk

sykepleieforbunds landsgruppe av intensivsykepleiere, 2017, p. 3). Therefore, it is important that nurses participate in research to develop new knowledge (Woith, Jenkins, Astroth, & Kennedy, 2014). However, several factors or barriers make it difficult to conduct research on nurses in hospitals (Lindahl & Bergbom, 2015; Syme & Stiles, 2010; Woith et al., 2014). One barrier relates to nurses' time (Akerjordet, Lode, & Severinsson, 2012; Woith et al., 2014). ICU wards are busy, have high patient/staff ratios and patients are vulnerable and dependent on the ICU nurses; therefore, there are constraints on nurses' time. Finding time to participate in research may be difficult for ICU nurses who spend most of their shifts working closely with patients. One of the main reasons for the pattern of participant attrition in Study III, in which nurses dropped out after reading the introduction page or did not complete the measures, may have been that the survey was quite time consuming and took 20.5 minutes to complete. Nurses may have found it difficult to allocate this amount of time to the study. This was not an issue in Study II, as the participants were replaced by other nurses and participation was organised by the ward leader and nurses participated in the study in quiet rooms. Nevertheless, the nurses stated in the Study II focus group interviews that it was important that they were informed about the time length of the survey, so they could plan their time around it. The survey time length was therefore stated on the introductory page of the survey in Study III. It was ethically correct to inform the participants about the study's length of time; however, informing the participants could also have led to the high attrition rate because the nurses might have withdrawn before starting the survey, thinking it would be too time-consuming.

Another barrier to conducting research with nurses relates to systems (Woith et al., 2014). Conducting or engaging in research is not a tradition for nurses, even though nursing research has evolved over the last 30 years (Kelly, Turner, Speroni, McLaughlin, & Guzzetta, 2013; Smirnoff, Ramirez, Kooplinae, Gibney, & McEvoy, 2007). Therefore, it is important to have key players or leaders that support the project (Akerjordet et al., 2012; Kelly et al., 2013). It is possible that the low participation rate in Study III and the participant attrition could have been avoided if better contact had been established with the ward leaders, so they could have engaged the nurses and provided time for them to participate in the survey. Unfortunately, it was very difficult to make contact with the ICU leaders and to involve them as key players, even though they found the project interesting.

Although all the leaders agreed to forward emails and reminder emails (with information about the study and a link to the study) to all the ICU nurses on the ward, many leaders did not provide any feedback to the researcher. Several reminder emails were forwarded to leaders before they responded. This situation led to a much longer data collection period than planned and difficulties in obtaining an overview of the recruitment process. To avoid these issues, we could have applied for permission to send the emails directly to the ICU nurses' work email addresses instead of involving the leaders. However, it would have been time consuming to obtain approximately 950 email addresses. We could also have applied for permission to distribute the survey to the nurses' private

email addresses; however, the requirement of anonymity and the belief that nurses probably did not want to participate in their private time meant that this was not pursued.

Another issue related to the participant attrition that was expressed by some leaders was the demand to take part in a large number of surveys from other projects. This placed high pressure on nurses, and some were tired of participating in research.

Another reason for participant attrition is the possibility that some of the survey questions or statements did not fit with the nurses' ethical beliefs. This is discussed further in the Ethical chapter below.

Another barrier may have been the user-friendliness of the survey in Study III; this is discussed in the Instrument chapter.

8.3 Data collection

The project incorporated different methods of data collection, an approach in accord with the project's overall theoretical perspective. Although this is considered a strength of the project, it is necessary to discuss some of the approaches and instruments.

8.3.1 Demographic questions

The qualified ICU nurses in Study II and Study III were asked to report self-perceived weight as very underweight, underweight, normal weight, overweight or very overweight. There is evidence that overweight and obese individuals tend to under-report their weight (Nawaz, Chan, Abdulrahman, Larson, & Katz, 2001; Rowland, 1990). Furthermore, researchers have shown that overweight men are less likely to have accurate weight perceptions than overweight women (Tsai, Lv, Xiao, & Ma, 2016); therefore, the self-perceived weight in these studies may not be totally accurate. Furthermore, participants may have not correctly differentiated between overweight and very overweight; participants with obesity may have reported that they were overweight instead of very overweight.

8.3.2 Individual interviews

The decision to use individual interviews in Study I was based on several factors. First, it was felt that individual interviews would help ICU nurses to reflect on the issues and would generate data that could provide a broader understanding of nurses' experiences in caring for obese ICU patients. Second, research indicates that the use of individual interviews is an effective way to encourage respondents to talk about different experiences and attitudes. Participants in individual interviews are more likely to raise socially sensitive topics than respondents in focus groups (Kaplowitz, 2000). Third, the ICU is usually a very busy workplace, and arranging focus group interviews may be more difficult than arranging individual interviews, as nurses who participate need someone to take

over their tasks. It is more challenging to find enough staff to cover for several nurses at one time, than to find single replacement nurses for several separate interviews over a period of time.

Despite the appropriateness of using individual interviews, the busy ICU workload presented challenges that may have influenced the interviews. The original plan was to conduct interviews with ICU nurses at two different ICU wards over a period of several days; only a very few interviews per day were to be conducted to give the researcher time to reflect between the interviews. However, the wards were very busy; therefore, as many as six interviews were conducted on the first day, as this was the only way of recruiting participants. The next day, the ward was even busier and only two ICU nurses were available for interviews. After approximately 3 weeks, another ICU was visited. The plan was to conduct interviews over 2 days, but as this ward was also very busy, the interviews had to be conducted in only 1 day. Time for reflection between the interviews would have been desirable (e.g. listening to the tapes to improve the researcher interview skills or to improve the questions). However, it was not possible to achieve this. Despite this busy interview schedule, we achieved rich and meaningful data from the participants.

8.3.3 Focus group interviews

In Study II, we conducted focus group interviews as a step in the translation process. Focus groups can be helpful in developing research instruments such as questionnaires, in identifying and developing relevant concepts or to evaluate the survey process (Wolff, Knodel, & Sittitrai, 1993). These advantages were apparent in relation to the vignettes. The interviews revealed important factors about the design and content of the vignettes. It was very useful to conduct focus group interviews, as the nurses expressed different opinions of the survey that were useful for improving the questionnaire before the larger-scale study (Study III).

It is recommended to use both a moderator and an observer, also called a secretary, in focus group interviews (Malterud, 2012). In the focus group interviews, the researcher acted as a moderator and there was no observer. The decision not to include an observer was based on the interview aims, which were to obtain ICU nurses' understanding of the translated instruments, to determine if the vignettes measured behavioural intentions and to ascertain the usability of the survey. The aim was not to ask complicated questions or questions that would challenge the nurses to share sensitive meanings or experiences. Thus, it was considered appropriate that only the researcher should conduct the interviews. However, the quality of the interviewer may affect the quality of the data, as the interviewer is the research instrument (Chrzanovska, 2002, p. 73); therefore, it may have been useful to also have an observer present. The researcher who conducted the interviews was not an experienced interviewer, which could have affected the results. One challenge is that most focus groups contain different participants with different interpretations, backgrounds and characteristics (Krueger & Casey, 2009). Some participants may be dominant talkers and others

may be shy. This type of dynamic was experienced in the interviews, as some participants spoke freely, and others were quieter. It was difficult to remain aware of these issues and to achieve a balance where all group members had time to speak. An experienced interviewer or a moderator could have addressed these issues more skilfully. Although the researcher was not an experienced interviewer, there are several other criteria that an interviewer is recommended to have to obtain good quality interviews. The interviewer must have extensive knowledge of the theme discussed, have the ability to listen and know when to ask questions and be familiar with the participants' language and context (Brinkmann & Kvale, 2015). As an ICU nurse, the researcher's knowledge of the theme and background and hence her familiarity with the language and ICU context was a strength of the interview process. The data obtained were considered to be rich and meaningful.

8.3.4 The IAT

For Study III, the whole survey was initially designed in Inquisit by millisecond software (Millisecond). This is a software programme for cognitive, social, neurophysiological and online psychological experiments that allows the programming of computerised IATs. The survey was programmed by the researcher, which was a time-consuming and challenging process. After programming the survey, the plan was to run the survey on a computer at an ICU to check for any problems before sending it to the participating hospitals. Unfortunately, it was impossible to start the survey on the ICU computer. After several days of talking to 'Sykehuspartner', which has overall responsibility for information and communications technology (ICT) for one of the four regional health authorities, and communicating with several hospital ICT departments, it was determined that the hospitals have very strict computer security routines and would not allow any programme containing small plugins. Plugins are mandatory when using internet based IATs to measure the time for each computer key press in milliseconds. This issue was a problem for the research at the time and it is therefore important to discuss it.

We had to devise new solutions for the survey. The following solutions were discussed:

1. Obtain permission from the hospitals to forward the study to the ICU nurses' private email addresses so that the Millisecond programme could run.
2. Buy several small laptops with private Internet access, load the Millisecond programme onto the laptops and forward them to the ICUs.
3. Buy 60 memory sticks, download the survey from Study II with minor changes onto these and forward these to the ICUs.
4. Develop a new survey in Unipark/Questback (Unipark/Questback) with an IAT that did not require plugins, but measured response times in the same way as a paper-and-pencil IAT.

The different options all had positive and negative aspects, which are discussed below.

1. To obtain permission from the hospitals to forward the study to the ICU nurses' private email addresses would have created some challenges. First, as mentioned earlier, ICUs are usually very busy, and it might have been difficult to involve the leaders by asking them to forward the survey to private email addresses or to us. This assumption was supported after experiencing difficulties communicating with the leaders by email and engaging them in involving the ICU nurses when we started the survey in Study III. Second, if the nurses had received the survey through their private email addresses, we would have had access to the participants' Internet protocol (IP) addresses. This was not planned when we started the research application process to the hospitals, and new applications would therefore have been necessary. Furthermore, we would have had to make a new application to the NSD for permission to obtain email addresses and to have access to IP addresses. Another issue was that the ICU nurses would have to participate in their spare time, which may have resulted in fewer participants. A positive aspect was that nurses could find it easier to participate from home.
2. Buying several laptops and forwarding these to the wards would have created some organisational challenges. It would have required someone to be responsible for the laptops, and for encouraging the nurses to participate and complete the survey. Because of the barriers mentioned above related to conducting research at hospitals, it may have been difficult to find key persons to take this role. A positive aspect of this solution was that we could have run the initially designed Inquisit (Millisecond) survey.
3. Using memory sticks would also have caused some organisational challenges, as we would have needed someone to be responsible for the sticks at the wards. Memory sticks are small devices and the possibility of them getting lost would have been an issue. Furthermore, after a discussion with some hospital ICT departments, it became clear that some hospitals did not allow memory sticks for security reasons. To obtain permission, all the memory sticks would have had to be checked with anti-virus software and approved by each ICT department at each hospital; this would have been very time consuming. A positive aspect was that we could have run the survey from Study II with some minor changes, as we had used memory sticks in Study II.
4. Developing the survey in a different software programme than Inquisit by millisecond would have resulted in the same measures as the initial survey, except for the IATs. To avoid plugins, the IAT could not be programmed to measure response time for each computer key click, but instead measured response time for a whole IAT block, as in a paper-and-pencil IAT.

After some considerations, we decided to choose option 4 and programme the survey in Unipark/Questback (Unipark/Questback), which is a software programme for web-based surveys. We felt that this was the most appropriate solution as it was important that the participants remained anonymous. Another issue if we had obtained permission to allow the nurses to participate from home was that they could find it too time consuming to participate in their spare time. After starting the survey in Study III, this assumption seemed to be supported.

We found that the nurses who were recruited from Facebook and participated in their spare time were less likely to complete the survey than those who participated from the ICUs (9% versus 14.95%, respectively). This may be speculative, but it may indicate that the nurses from the Facebook group did not have the time or did not feel it was important to spend their spare time completing the survey. Furthermore, the researcher's own experiences of engaging key persons when working as an ICU nurse reflected the difficulties experienced in the sample recruitment process. Therefore, we found that the best solution to the challenges arising from the hospital security rules was to programme a new survey in Unipark/Questback.

IATs are traditionally computer based, but there are conditions in which this is impractical or infeasible (Chan et al., 2017), as in the present research. Although paper-and-pencil IATs do not measure reaction times for each stimuli in a block, but measure reaction times for a whole block, they can be a very good alternative to computer-based IATs (Chan et al., 2017; Lemm et al., 2008). The same attitude patterns have been found in several studies regardless of whether computer-based or paper-and-pencil versions of IATs have been used (Brochu & Morrison, 2007; Teachman & Brownell, 2001). Although this solution was considered the most appropriate, one issue related to computerising a paper-and-pencil version of the IAT should be discussed. Some participants reported that they found the IAT in Study III difficult to complete as it was difficult to use the computer mouse to mark the attributes quickly enough. Participants in Study II did not report this problem; these participants used keyboard keys to mark the attributes. The problem of user-friendliness was reported by only a few participants in Study III, but it is important to acknowledge the problem, as it may have affected the participants attrition (although many nurses responded positively to the survey).

8.3.5 Vignettes

It is important to acknowledge that behavioural intentions are difficult to measure and that results should be interpreted with caution. Wallander (2012) has argued that vignettes are not designed to be representative of real-life behaviours, but are more of an indicator of professional behaviours. Therefore, the question is not whether the 'real world' and the 'vignette world' are equivalent, but rather whether the mental and behavioural processes in the study are activated as they would be in real life (Evans et al., 2015). The four vignettes were designed to measure behavioural intentions according to the ICU nurses' willingness to care for obese patients when they had to choose between the patient or other tasks at the ICU (or even attending to private matters). This design was found to be appropriate, as the nurses in Study I experienced ambivalence in caring for obese ICU patients. This stemmed from fear related to their own health, and uncertainty as to whether these patients are entitled to the same care as normal weight patients. We found that the four vignettes revealed some mental and behavioural processes comparable to nurses' real-life situations at the ICU; hence, the results could be said to be indicators for their professional behaviours. However, the

vignettes were only tested using focus group interviews. This could be a limitation and should be taken into consideration before any concluding remarks can be made.

8.3.6 Translation of instruments

The process of translating instruments adapted to another culture or context can demand considerable time and effort to ensure that the instrument has been appropriately translated. It was therefore important to conduct this stage of the research carefully and to follow appropriate guidelines (Wild et al., 2005) for the translation process to ensure a proper translation adapted to a Norwegian ICU context. According to Maneesriwongul and Dixon (2004), the quality of the processes followed for instrument translation in nursing research varies. Instruments that are poorly translated may threaten the validity of the data (Wild et al., 2005). Therefore, the establishment of quality in the translation process is crucial to ensure that the research results obtained do not reflect translation errors (Maneesriwongul & Dixon, 2004). Further, the translation and adaptation should be conducted in a rigorous way to ensure that the instrument is adapted to the culture and context in which the research will take place.

A particular issue arose in the translation process, both from the professional translator and from the researchers involved in the translation process. This related to the use of the word ‘fat’, which is used several times in the AFA questionnaire. A linguistic Norwegian translation of ‘fat’ is ‘fet’, which might be perceived as a negative word. The word may be considered a very direct word and may be perceived as offensive and provocative. In a Norwegian study that measured severely obese individuals’ sensitivity to expressions describing overweight and obesity, participants rated ‘fet’ as one of the most inappropriate words (Strømmen, 2015). Several American studies showed that the word ‘fat’ is perceived as one of the most undesirable weight-related words among obese individuals (Dutton et al., 2010; R. Puhl & Himmelstein, 2018; R. Puhl, Peterson, & Luedicke, 2013; Wadden & Didie, 2003). Furthermore, a Scottish study by Gray et al. (2011) that investigated which weight status terms were acceptable for overweight patients found that the word ‘fat’ was associated with laziness, pity and greed.

Owing to the sensitive nature of this word, we decided to contact the developer of the instrument, C. S. Crandall, to discuss the word and its meaning. According to the developer, the term ‘fat’ is descriptive, clear and does not imply any kind of standard, in contrast to a term such as ‘overweight’, which may indicate a state that is genetically determined (Crandall, email 21.11.2016; Crandall, 1994). It does not imply a medical condition or a cause in the way that a term like ‘obese’ does. Furthermore, Crandall maintains that the expression ‘weighs too much’ communicates an idea that he did not intend. ‘Some people are fat—and to say anything else ends up communicating something about cause, or judgment, or

health' (Crandall, email 21.11.2016). 'The term fat is not used in a pejorative sense' (C. S. Crandall, 1994, p. 882).

To the researcher's knowledge, no studies have investigated normal weight individuals' perception of weight-related terms. Therefore, we do not know if normal weight individuals have the same perception of the word 'fat' or 'fet' as overweight or obese individuals do. In Study II and Study III, most participants reported normal weight (approximately 76%), but 20% reported being overweight or very overweight, thus we felt it was possible that some respondents would react negatively to the word 'fet'.

After discussing the word in the focus group interviews, we found that participants agreed that the word is not commonly used by health care professionals but would be appropriate in a survey. Following Crandall's recommendations (Crandall, email 21.11.2016) and the responses of participants in the focus group interviews, we decided to translate the word 'fat' to 'fet'.

Another issue in the translation process is the decision to not follow international guidelines for translating the single words used in the IATs and the explicit bias scale. Here, the decision was made based on the simplicity of the words and that they were only single words. In retrospect, it could be questioned if this was a wise decision because challenges can arise in translating single words without following guidelines for the process. To achieve equivalence between the translated version and the original version of, for example, a scale is one important goal of translating (Streiner & Norman, 2008). Equivalence could have been missed by not following guidelines because these guidelines, for both forward and backtranslation, ensure equivalence. Nevertheless, a strength in the translating process was that a web page for synonyms was used to ensure more word options (Synonymet).

Another issue is that in the translation process of the AFA questionnaire, professional translators, along with the researcher and two supervisors, were used in the forward and back translation. One concern related to the use of professional translators are their high reading level, knowledge of two languages and possible knowledge about two cultures, which the participants in the study might not have (Streiner & Norman, 2008). This may lead the professional translators to more easily understanding the meaning of the questions compared with the participants. This could also be the case for the researcher and the two supervisors, who were familiar with the questionnaire. Therefore, Streiner and Norman (2008) suggested that a group of unilingual individuals with the same socio-demographic as the participants should check the items in the scale. The translation guidelines from Wild et al. (2005) or from the World Health Organization (n.a.) did not suggest this; therefore the questionnaire was not tested by a group of unilingual individuals. Instead, a cognitive debriefing was conducted to evaluate the degree of comprehensibility of the translated material; this was done using participants in focus groups. It was not an inclusion criterion that the participants should be unilingual, but because of their education, we could expect that they were not unilingual. If this had an impact on the results from the focus group interviews is quite speculative because the nurses only were

presented the translated version of the AFA questionnaire, not the original version.

8.4 Statistical analyses

In Studies II and III, there were many variables resulting in multiple tests. When tests are used at, for example, the 0.05 level of significance, then the chances of making a type I error will be only 5 %; therefore, the probability of not making this error would be 95%. A type I error is when one rejects a hypothesis when it is true or, in other words, when one believes there is an effect when there is not one. When conducting multiple tests, the probability of making type I errors will increase. When using, for example, three tests, the probability of making type I errors will now increase to 14.3%. This is calculated as $1 - (0.95 \times 0.95 \times 0.95) = 0.143$. This type of error is called the familywise error rate (Field, 2018). To avoid familywise errors, different types of corrections can be applied, such as Bonferroni corrections. In Study III, there were 11 tests when the associations of age and/or years of working experience with attitude/stereotype/intention measures were tested, and there were 55 pairs within the attitude/stereotype/intention measures when correlations between those pair were measured. The Bonferroni correction was therefore applied.

It seems as though there is no consensus of when to use Bonferroni procedures (Armstrong, 2014; Nakagawa, 2004), and according to Armstrong (2014), these procedures should not be routinely applied, their use depending on the circumstances for the study. Armstrong (2014, p. 502) suggested that using Bonferroni corrections should be considered if: 1) a single test of the 'universal null hypothesis' that all tests are not significant is required, 2) if it is imperative to avoid a type I error, and 3) a large number of test are carried out without preplanned hypotheses. In this case, we used the Bonferroni correction to avoid type I errors.

There are some concerns regarding controlling the familywise error rate, which should be mentioned here. The Bonferroni correction is said to be conservative, and using this type of correction can reduce the chances of type I errors but also increase the likelihood of type II errors. Type II errors are described as keeping hypotheses that are not true or, in other words, when we believe that there is no effect, but there is (Field, 2018). This could result in important findings being missed. Even if the results are not statistically significant, they can be important for clinical purposes and contribute to advances in a field. To take these concerns into account, the p-values from correlation coefficients in Study II and in Study III are presented with numbers so that the results can transparently be reported to the reader. Nevertheless, in the current thesis, the results were presented according to strict Bonferroni corrections and discussed accordingly.

For Study II, a Bonferroni correction was not applied even though this study uses multiple tests. Hence, in the current thesis, a Bonferroni correction has been applied, and the correlation coefficients are presented with p-values in numbers. In the present thesis, the results from the Bonferroni correction will be discussed.

8.5 Transferability of results

A question to ask is if the overall results from the three studies can be considered generalisable. To argue that the results from a study are generalisable, the results must be transferable to other groups or settings, the sample must be representative of the population, and the studies must be valid and reliable (Polit & Beck, 2010). A sample is representative when the main characteristics of the participants are almost the same as those of the population (Polit & Beck, 2012).

One question that is quite common in qualitative studies (Brinkmann & Kvale, 2015) is whether the results from a single study are generalisable. Nursing science has been characterised by different views of knowledge and has developed beyond a positivistic view (with the aim of producing laws about human behaviour and generalising these) to a more humanistic view (in which every situation is considered unique). From a postmodernist perspective, it is the diversity and contextuality of knowledge that is important; according to Brinkmann and Kvale (2015, p. 295), this is a shift from generalisation to contextualisation. Therefore, we can question why it is necessary to generalise results and ask instead if the results are transferable to other situations or contexts.

For Study I, convenience sampling was used. This was appropriate for this study, as it improved the accessibility of participants and ensured that they were available at the time of the interviews (Ilker, Musa, & Alkassim, 2015). Therefore, it was not possible to select participants according to homogeneity and diversity, as the population consisted of only two different ICU wards, and the leader of the ICUs recruited the participants. For these reasons, no men were included in the sample, as only female nurses were available on the day of the interviews. Research on gender differences in attitudes toward obesity (differences that were apparent in Study III) suggests that the inclusion of male participants could have enriched the data set (Flint, Hudson, & Lavalley, 2015; R. Puhl et al., 2015; Schwartz et al., 2003). Even so, the sample was considered representative for ICU nurses, a group dominated by females, and the results were comparable with those of previous studies (Hales et al., 2017; Shea & Gagnon, 2015).

For Study II and Study III, non-probability sampling was used. In Study II, we used a convenience sample, and in Study III a consecutive sample design (Polit & Beck, 2012). For the convenience sample, the participants were recruited according to which nurses were available on the day of the survey. One limitation of this sampling procedure might be that the participants recruited are not representative of the population (Polit & Beck, 2012). A strength of Study II was that the sample consisted of both female and male nurses, had a range of length of work experience as ICU nurses and had a range of self-perceived weight. The use of a consecutive sample design for Study III was appropriate as it allowed us to recruit all ICU nurses at each ward if they fulfilled the inclusion criteria.

Because of the high participant attrition in Study III (chapter 8.2), a question is if ICU nurses interested in the topic, and with one type of attitude and behavioural intention completed the survey, while nurses not interested or with other attitudes and behavioural intentions may have dropped out. If this is the case, it is difficult to argue that the sample was representative of the population.

To the researcher's knowledge, there is no registration list of qualified ICU nurses working at ICUs in Norway. The lack of these statistics led to problems in calculating the sample size to ensure that the results would be generalisable. To obtain an estimate of the number of ICU nurses, almost all ICUs in Norway were contacted by email or phone, which was a time-consuming process. Many ICU managers did not answer the emails and it was difficult to reach them by phone. Some managers did not possess the exact number of ICU nurses working on the wards for various reasons; for example, some employees were not trained ICU nurses, some were on maternity leave and some were on sick leave. This lengthy process produced a final estimate of 2,000 qualified ICU nurses working at ICUs in Norway. Regarding the participants recruited from the Facebook group of ICU nurses, there are no data on how many nurses in this group are qualified ICU nurses who work at ICUs.

Despite the mentioned issues, there were factors ensuring that the sample was representative of ICU nurses in Norway, and that the results were transferable to other ICUs. The studies involved ICU nurses from different hospitals and ICUs in Norway. The hospitals were geographically spread across the country and ranged from small to larger hospitals. The wards were general, medical and surgical ICUs. Some wards also incorporated recovery wards. The sample contained participants of both genders, with different ages and a range of years of work experience as an ICU nurse.

8.6 Trustworthiness of qualitative data

Establishing trustworthiness was the **fifth** step in the Gadamerian based research method of Fleming et al. (2003) for Study I. The establishment of trustworthiness is important in qualitative studies, particularly as there are debates about whether qualitative research can be considered scientific (Marshall et al., 2017). The researcher therefore used the four well-known trustworthiness criteria developed by Lincoln and Guba (1985): credibility, dependability, transferability and confirmability.

According to Lincoln and Guba (1985), credibility is the predominant goal of qualitative research. To ensure credibility, it is important that the study is carried out in a way that increases the believability of the findings and that this is made clear to readers (Lincoln, 1985; Polit & Beck, 2012). To ensure credibility, all the steps in the present analysis were carefully conducted and thoroughly presented to ensure that readers can follow the process. Furthermore, to ensure credibility, the researcher's own preunderstanding which in a Gadamerian based method is an important factor in the whole research process (Gadamer, 1990) has been presented. The researcher has been particularly aware of her preunderstanding

and has discussed this with the supervisors. Moreover, the interpretations were discussed with the supervisors and also illustrated with participant quotations to ensure that the results are perceived as credible by readers. Lincoln and Guba (1985, p. 301) suggest several ways of ensuring credibility; these 'Activities increasing the probability that credible findings will be produced' include being familiar with the cultural context and building trust with the participants. Regarding the credibility of Study I, a strength of this study is that the researcher is a qualified ICU nurse with knowledge about the ICU culture and context. This shared background may have meant that participants found it easy to trust the researcher and share their experiences with her.

Dependability is defined as the stability of the study. Could the results be replicated in another study using the same or similar participants and context (Polit & Beck, 2012, p. 492)? To ensure dependability, the study was carefully conducted following established guidelines for the research process, such as the Gadamerian-based research method developed by Fleming et al. (2002). Furthermore, the research process (e.g. data collection, analysis and interpretation of results) was discussed with supervisors to ensure that the results were supported by the data.

To ensure confirmability, the results must reflect the participants' beliefs, meanings and experiences, not the researchers; this requirement relates to objectivity (Polit & Beck, 2012). Quotations are thus presented in the paper to allow the reader to judge the reliability of the interpretation. Fleming et al. (2003) suggest that confirmability can be ensured by having a dialogue with the participants at all stages of the research process. Although the researcher asked the participants questions to clarify or avoid misunderstandings during the interviews, it was not possible to have a dialogue at all steps in the research process. Although it is important to be aware of presenting the participants' voices instead of the researcher's, it is important to acknowledge that in a Gadamerian tradition, understanding is only possible through one's own preunderstanding. Therefore, the analysed data may vary among different researchers with different preunderstandings. Objectivity is therefore not entirely possible, but it is important to be as faithful as possible to the text (Fleming et al., 2003).

According to Lincoln and Guba (1985), the last criteria in ensuring trustworthiness is transferability, which refers to whether the results can be applied or transferred to other contexts and populations (Polit & Beck, 2012). Lincoln and Guba argue that 'it is, in summary, not the naturalist's task to provide an index of transferability, it is his or her responsibility to provide the data base that makes transferability judgements possible on the part of potential appliers' (Lincoln, 1985, p. 316). A 'thick description' (Lincoln, 1985) of the participants and the setting that is presented as clearly as possible (including limitations) increases transferability. This description was presented in the paper. Furthermore, the ICU nurses and the ICU context in the study were similar to other ICU settings, and some of the results were similar to other studies in ICU

settings (Hales et al., 2016; Shea & Gagnon, 2015). The results can therefore be considered transferable.

8.7 Reliability and validity of quantitative data

To assess the quality of quantitative measures, reliability and validity are important criteria's (Polit & Beck, 2012). Reliability has been defined as 'the degree of consistency or dependability with which an instrument measures an attribute' (Polit & Beck, 2012, p. 566); in other words, to what extent a measurement scale produces the same results on separate occasions (Bannigan & Watson, 2009, p. 3238). Validity is the degree to which a scale measures what it is intended to measure (Bannigan & Watson, 2009, p. 3238).

Because Study II was a pilot study with the aim of testing the research instruments, a discussion of the results according to reliability and validity is discussed here, and the results according to attitudes and behavioural intentions are discussed in the results chapter (9.0). Reliability for Study II was assessed using Cronbach's alpha to examine the internal consistency of the AFA questionnaire and the vignettes. The internal consistency was satisfactory for the AFA questionnaire and comparable to the original questionnaire (C. S. Crandall, 1994). The internal consistency of the vignettes was also satisfactory, but the results could not be compared with those from other studies as the vignettes were specially designed for this study. Some vignettes had to be revised following results from the focus group interviews; this process also increased the reliability of the study. The internal consistency of Study III was similar to that of Study II: the overall AFA questionnaire, the subscales and the vignettes showed satisfactory internal consistency.

A value above 0.7 is often described as an acceptable value when examining internal consistency using Cronbach's alpha (DeVellis, 2012; Field, 2018). These values were found in the measurements in both Studies II and III, except for the collapsed bias scale in Study III. Therefore, it is important to mention that there might be other issues that are more important than these guidelines. Cronbach's alpha, for example, depends on the number of items in the scale (Field, 2018) because Cronbach's alpha values are sensitive to the number of items (Pallant, 2013). There is a tendency for Cronbach's alpha to increase with a higher number of items in a scale (Bohner & Wänke, 2014). It might be more common to find a low Cronbach's alpha in scales with fewer than 10 items (Pallant, 2013), and in cases with few items, it may be more appropriate to present an interitem correlation instead. For the collapsed bias scale, the mean interitem correlation was .25. An optimal range for this value is .2 to .4 (Pallant, 2013), so the internal consistency could still be said to be satisfactory for the collapsed scale.

To obtain a reliable regression model in Study III, the rule of having 10–15 participants for each independent variable was followed (Field, 2018). Because there were seven independent variables (seven independent variables x 15 participants = 105) and the sample size was 159, the regression model was found to be reliable according to the sample size.

It would have been desirable to conduct a test-retest to assess reliability for the survey in Study II but owing to the busy ICU and the ICU nurses various shifts this was not possible.

Another way of testing reliability is the split-half reliability test. To conduct this, the scale must be divided into two subscales. The scale is internally consistent if the two parts are highly correlated (Streiner & Norman, 2008). Because the AFA questionnaire consisted of 13 questions divided into three subscales, it was not possible to divide the scale into two parts, and the split-half reliability test was not possible to conduct. The correlation between the three subscales, however, may indicate a good reliability of the main scale.

Validity can be tested in various ways, and some researchers have recommended the use of different approaches instead of relying on one single test (Bannigan & Watson, 2009). Therefore, we used several validation procedures.

Translating the AFA questionnaire in a thorough way by following guidelines was a part of assessing validity of the survey in Study II (Wild et al., 2005). Furthermore, we tested face validity through focus group interviews in which participants discussed the translation of the instruments and the usability of the whole survey. The ICU nurses found the survey easy to understand; they felt that it measured attitudes and behavioural intentions and that the usability was satisfactory. The vignettes were designed by experienced nurses and experienced researchers who were also nurses, some of who were familiar with the ICU context; therefore, it was expected that the vignettes would have satisfactory face validity. Some researchers have argued that face validity does not provide legitimate evidence of validity, as this type of validation is based on what initially looks or feels right (Royal, 2016). Despite this argument, the measurement of face validity in Study II was an important part of the validation. The nurses' experiences of completing the survey and their thoughts about the measures were important for the implementation of the survey in Study III.

Another measure of validity was conducted by comparing the results from Study II and Study III with results from other studies using the same measures. As other studies showed comparable results to our own (Sabin et al., 2012; Teachman & Brownell, 2001), this confirmed the validity.

We did not use all the IAT words used by Schwartz et al. (2003) but selected those 20 words we thought would be recognisable to the participants and that were representative of the target words. We used this method in both Study II and III, as Nosek et al. (2005) found that using few IAT attribute words that are good representations of the target words, instead of using many words that are less representative of the target words, can strengthen construct validity.

Construct validity was also assessed by determining convergent and discriminant validity for Study II. To indicate convergent validity, we expected the correlation between the implicit and explicit measures to be lower than the correlation within the implicit and explicit measures. Analyses revealed that the implicit measures were positively correlated. Furthermore, the AFA subscales were also positively correlated, but after assessing the Bonferroni correction with a significance level

of 0.0009, no other explicit measures were found to be significantly correlated. Furthermore, because of the low sample size, higher p -values were expected. Nevertheless, the overall pattern (higher correlation coefficients accompanied with lower p -values and vice versa) supported convergent and discriminant validity. Discriminant validity was found because there were no correlations between the implicit and explicit measures.

The Study III analyses revealed that after the Bonferroni correction, unlike with Study II, the implicit measures did not correlate (Spearman's $\rho = 0.20$, $p = 0.013$). Using this correction may have led to a type II error. However, as in Study II, the overall pattern was important. Almost all the explicit measures were positively correlated. The overall correlation pattern supported convergent validity. As expected, there were no correlations between implicit and explicit measures indicating discriminant validity.

To ensure construct validity, the vignettes had to 'simulate' real-world scenarios. To ensure external validity, the results had to be generalisable to other ICU settings (Evans et al., 2015). Therefore, the vignettes were designed as small stories describing various care situations at the ICU; they were intended to depict common situations that could happen at any ICU in the world. Furthermore, the vignettes were designed by two experienced nurses and experienced researchers who were also nurses, some of who were familiar with the ICU context, which ensured that the vignettes showed construct and external validity.

Finally, it would have been desirable to conduct a social desirability test for Studies II and III because this would be a part of validity testing (King & Bruner, 2000). There is a possibility that the ICU nurses found it difficult to answer the explicit questions about attitudes and their behavioural intentions because of social norms and hence felt a need to present themselves in a favourable manner. This social desirability could have influenced the results for the explicit attitudes and behavioural intentions. For Study II, there was limited time because the nurses were replaced by other nurses, and there was no time for including such a test in the survey. For Study III, we expected high attrition rates, and the time to conduct a social desirability test could have increased this rate and was therefore not found appropriate. However, because the IAT is rarely affected by social desirability bias, including this method was a strength for the studies.

8.8 Researcher's role

The thesis researcher is a qualified ICU nurse and was therefore conducting research on participants from her own profession. This could be both a strength and challenge of the project (Malterud, 2013) that could affect results; it should therefore be reflected upon.

It is important to acknowledge that an interview should not be considered an open and free dialogue between two equal partners, despite a mutual understanding of the interview process. The interview is a professional conversation between the researcher and the participant and according to Kvale and Brinkmann (2009), has a clear asymmetrical power relation, in that the

researcher is the leader of the interview and is asking questions that are relevant for the research project. Furthermore, the interview is a one-way dialogue, and the conversation is a means of letting the participant express their thoughts, narratives and descriptions, which might provide useful information for the researcher depending on the study aim (Kvale & Brinkmann, 2009). It has been important to reflect on these various aspects of asymmetry and how they could have affected the participants during the interviews in Study I. Therefore, the researcher felt it was important to inform participants that she was also a qualified ICU nurse. She hoped that the nurses would find it easier to share their experiences with a colleague and would feel they did not have to adapt their language to ensure that the interviewer could understand them. The data obtained from the interviews were rich and meaningful and it seemed likely that the nurses found it easier to share their experiences with a researcher from their own profession.

Although the researcher perceived herself as an ‘insider’ and felt that this gave the participants confidence, it is possible that her in-depth knowledge of the context meant that various perspectives or statements were overlooked (Morse, 2007). A researcher without this in-depth knowledge may have responded to or interpreted the conversations differently. However, the researcher’s interpretation of the data is always one possible interpretation, and other researchers may have arrived at different interpretations.

Another question arose related to the researcher’s role in Study II. The researcher was a former ICU ward employee, and she informed the ICU nurses about the study and was present on the ward when the nurses completed the survey. As the participants were all former colleagues, it must be considered whether the presence of the researcher influenced the participants to respond in a more pro-thick direction on the anti-fat measures than if the researcher had not been there. Surprisingly, the nurses in Study II scored higher on the overall AFA questionnaire and the three subscales than the nurses in Study III, indicating slightly more negative anti-fat attitudes. Moreover, they scored lower on the behavioural intention measures than participants in Study III, indicating that they were slightly less willing to help the obese patient immediately. These results suggest that ICU nurses may have found it easier or even safer to express their explicit attitudes because the researcher was a former colleague.

Another issue related to the researcher’s role is preunderstanding. It is important to identify a researcher’s own preunderstanding of the subject that is researched, as preunderstanding is a core feature in Gadamer’s hermeneutics. Gadamer (1990) believed that understanding is not possible without an awareness of one’s own history. This is a form of preunderstanding, and Gadamer claimed that it is only through one’s own preunderstanding that understanding is possible. Working as a qualified ICU nurse has led to a preunderstanding about the ICU as a workplace, an understanding and experience of the busy work at the ICU and an awareness of the challenges of caring for obese patients. The researcher’s preunderstanding can influence the whole research process. Therefore, it was important for the researcher to become aware of her own preunderstanding and to

focus on the changes in her preunderstanding as the project progressed (Fleming et al., 2003).

8.9 Ethical perspectives

Research on attitudes toward obesity could be considered sensitive. It is difficult to define what sensitive research is, but Wellings, Branigan and Mitchell (2000, p. 256) suggested that research is sensitive 'if it requires disclosure of behaviours or attitudes which would normally be kept private and personal, which might result in offence or lead to social censure or disapproval, and/or which might cause the respondent discomfort to express'. Furthermore, Lee (1993, p. 4) defines it as 'research which potentially poses a substantial threat to those who are or have been involved in it'. He further argues that threat can be divided into three main areas. The 'intrusive threat' refers to areas that are 'private, stressful or sacred'; the next type of threat is the 'threat of sanction', which is described as research that may reveal negative or deviant activities (R. M. Lee, 1993) or information that may be stigmatising (Dickson-Swift, Lyn James, & Liamputtong, 2008). The last area is called 'political threat'; this is explained as a situation in which the researcher trespasses into areas belonging to political or powerful individuals, which may result in a social conflict (R. M. Lee, 1993).

Regarding the area of 'intrusive threat', one could argue that asking ICU nurses about their attitudes and behavioural intentions toward a specific group of patients could threaten areas that these nurses may perceive as private. Asking about their personal attitudes, beliefs and behavioural intentions may be experienced as stressful. Furthermore, measuring such attitudes and intentions could also be experienced as a 'threat of sanction' if the results reveal that ICU nurses hold negative attitudes toward obese ICU patients, if they show a low intention to care for these patients and if their attitudes are associated with this type of intention. Particularly among qualified ICU nurses who are following ethical guidelines of non-discrimination and are trained to care for critically ill patients, such research may be perceived as constituting a 'threat of sanction', as such attitudes or behavioural intentions are not in accord with the guidelines. Revealing qualified ICU nurses' negative attitudes and behavioural intentions could even be experienced as stigmatising for some nurses. ICU nurses' experiences of threat could also be one of the reasons of the attrition in Study III.

According to Lee's (1993) definition of sensitive research and considering that two of the threatening areas could certainly apply to participants, the researcher has concluded that research on ICU nurses' attitudes toward obese ICU patients may be perceived as sensitive research.

Closely related to sensitive research is 'vulnerable groups', who are the target of the current research. Authors have defined and described vulnerable groups in different ways (Liamputtong, 2007; Melrose, 2002). Liamputtong (2007) referred to such groups as, for example, homeless people, older people, people with disabilities, chronically and terminally ill persons, mentally ill, children, immigrants, sex workers and so on. It is important to point out that the ICU

nurses in the current thesis are not seen as a special vulnerable group as described by Liamputtong (2007). Instead, it is the theme that can be perceived as sensitive for the ICU nurses.

Although sensitive topics or sensitive research may pose a threat for participants, avoiding conducting such research could be seen as an evasion of responsibility (Dickson-Swift et al., 2008). Studies on sensitive topics may provide new knowledge, as these types of studies challenge the taken-for-granted way we see the world (R. M. Lee, 1993). As there is a gap in knowledge about qualified ICU nurses' attitudes and behavioural intentions toward obese ICU patients, this research is important. It should be possible to follow appropriate research ethics and respect the participants, while simultaneously presenting the results in a balanced way, without holding back results to protect the nurses. The assumption that this is sensitive research has therefore been followed throughout the whole process of designing and conducting the three studies. Lee (1993) has argued that instead of focusing solely on the consequences of sensitive research, one must also look at the methodological issues. The studies have therefore been designed in a careful way taking into account their sensitivity.

In Study I, the interview guide was carefully designed to take into account that the questions could be perceived as sensitive. The guide was designed so that there were no threatening or insulting questions, even though it was important that nurses reflected on their experiences in caring for obese ICU patients. It was also important that the participants felt safe and could discuss difficult situations and sensitive topics with the interviewer. Furthermore, the researcher informed the nurses that there were no incorrect answers, and that all answers would be helpful in understanding the nurses' experiences.

In Study II and Study III, to minimise any feelings of threat, the anonymity of each participant was clearly confirmed in the invitation letter. Furthermore, we explained that the nurses' answers would help to raise awareness of an important and relevant topic in intensive care and nursing research.

As discussed previously, the translation of the word 'fat' was also an important issue related to the sensitivity of the research. Discussions in the translation group, contact with the developer of the AFA questionnaire and discussion of the word in focus group interviews were steps that increased the awareness of the sensitivity of the research.

Furthermore, in Study III, we followed the suggestions made by the participants in the focus group interviews about the AFA questionnaire. The participants felt that some questions were very direct, so information about this was incorporated into the survey in Study III.

The participants were also informed that the self-reporting of weight was voluntary, so that they did not feel coerced to provide this private information.

9.0 DISCUSSION OF RESULTS

The overarching aim of the thesis was to explore qualified ICU nurses' attitudes toward obese ICU patients by understanding their experiences in caring for obese ICU patients, to examine nurses' implicit and explicit attitudes toward this group of patients and to investigate if ICU nurses' attitudes are associated with their behavioural intentions. Designing, translating and testing the research instruments, which was the aim of Study II, is discussed in chapter 8.0.

9.1 ICU nurses' implicit and explicit attitudes

Because the results from Study I were the basis for Studies II and III, according to which attitudes should be measured, there was a strong link between the results from the three studies. The ICU nurses' experiences of caring for obese ICU patients will therefore be discussed along with the results from the other two studies.

The ICU nurses reported implicit preferences for thin over thick people in both Studies II and III; these results are comparable to other studies among health care professionals, such as nurses, physicians, dietitians and psychologist (Sabin et al., 2012; Schwartz et al., 2003; Tomiyama et al., 2015) and even among nursing and psychology students (Waller et al., 2012) and medical students (Miller et al., 2013; Phelan et al., 2014). Implicit preferences for thin over thick people are also seen in society in general, such as, for example, in a study investigating 2,380 UK residents (Flint et al., 2015) and in a study including 66,799 U.S. residents (Elran-Barak & Bar-Anan, 2018).

The ICU nurses also reported small explicit tendencies in favouring thin over thick people on the collapsed explicit bias scale and reported thick people as being worse ('bad versus good') (Study III) and lazier ('lazy versus motivated') (Studies II and III) than thin people. These results are also seen in other studies investigating health professionals specialising in or treating obesity using the same scales (Schwartz et al., 2003; Tomiyama et al., 2015). However, the participants in these studies reported anti-fat bias on all four explicit bias scales, whereas the ICU nurses in Studies II and III reported neutral attitudes or not significant attitudes on the other two scales ('worthless versus valuable' and 'stupid versus smart'). Furthermore, for the AFA questionnaire, the ICU nurses reported higher anti-fat attitudes according to willpower and fear of fat than on reporting disliking obese persons. These results are also comparable to other studies revealing the same pattern among, for example, dental hygienists, physiotherapists and medical students (Essex, Keiko, & Rowe, 2016; Phelan et al., 2014; Setchell et al., 2014).

Because there is a range of instruments measuring attitudes toward obesity (Morrison, Haaz, & Fontaine, 2009), comparing results with other studies measuring health professionals' attitudes with the same measurements is difficult because there are few studies using exactly the same measures. However, several types of anti-fat attitudes are seen in a range of studies investigating health professionals, such as, for example, nurses, physicians, nutritionists and physical

therapists (Akman et al., 2010; Brown et al., 2007; Brown & Thompson, 2007; Budd et al., 2011; Hebl & Xu, 2001; Schwartz et al., 2003; Setchell et al., 2014; Vallis et al., 2007; Ward-Smith & Peterson, 2016) and in society in general (R. Puhl et al., 2015)

Attitudes are complex, and the results from this thesis provide a good example of how such attitudes, stereotypes, beliefs and experiences can vary even when almost the same construct is measured. The results revealed ambivalence and contradictions in attitudes, feelings and experiences. The ICU nurses reported implicit preferences for thin over thick persons, explicit anti-fat bias (Study II and III) and experiencing negative attitudes and beliefs in the ICU (Study I). However, the tendencies on the reported explicit anti-fat attitudes were, in some cases, small and, in some cases, neutral. Simultaneously, the nurses reported an endeavour to provide good and equal care to all patients, regardless of weight but found these patients different than normal weight patients and questioned if these patients were entitled to the same care as normal weight patients (Study I).

A quote from the 1864 novella 'Notes from Underground' by the well-known Russian author Fyodor Dostoyevsky (1996, p. 47) illustrates the human conflict regarding attitudes and beliefs. It describes ambivalent secrets or attitudes that may not even be conscious to oneself, such as implicit attitudes or sensitive explicit attitudes and attitudes a person is unwilling to reveal (e.g. in self-reported questionnaires).

'Every man has reminiscences which he would not tell to everyone, but only to his friends. He has other matters in his mind which he would not reveal even to his friends, but only to himself, and that in secret. But there are other things which a man is afraid to tell even to himself, and every decent man has a number of such things stored away in his mind.'

Ambivalence has been defined as 'simultaneous and contradictory attitudes or feelings (such as attraction and repulsion) toward an object, person, or action' (Ambivalence, n.a). A study by Teachman and Brownell (2001) also found ambivalence in attitudes of health care professionals, who reported strong implicit preferences for thin over thick people; however, the researchers found little evidence of any explicit bias and few or no correlations between implicit and explicit measures (Teachman & Brownell, 2001). In contrast, several other studies investigating health professionals' attitudes have not found such ambivalence (Phelan et al., 2014; Sabin et al., 2012; Schwartz et al., 2003). For example, a study by Sabin et al. (2012) on a large sample of medical doctors reported strong implicit preferences for thin rather than fat people and also strong explicit anti-fat bias. The same pattern was seen in a study by Schwartz et al. (2003), who also found that healthcare professionals showed implicit and explicit anti-fat attitudes. Comparable results were also seen in a study among 2,380 UK adults (Flint et al., 2015). Studies that have shown little evidence of this type of ambivalence have mainly included healthcare professionals such as medical doctors, other health professionals, the general population and even medical students, rather than nurses (Flint et al., 2015; Sabin et al., 2012; Schwartz et al.,

2003). As ICU nurses work very closely with critically ill and vulnerable patients, they may find it more difficult to express and report their explicit attitudes than people in general or health care professionals working with patients in other settings.

Another reason may be the nurses' high level of training in caring for critically ill patients and, thereby, high level of reflection. It is argued that ICU nurses' reflection is a crucial skill when caring for ICU patients (Filmlalter & Heyns, 2015). This was clearly seen in Study I, where the nurses reflected about their attitudes and beliefs towards obese patients and how they found it emotionally demanding caring for these patients.

The nurses' professionalism may also affect their attitudes because negative explicit attitudes would not be in accordance with these nurses' core values. However, the ICU nurses reported implicit preferences for thin over thick people, and implicit attitudes and stereotypes were not correlated with explicit attitudes or stereotypes. These results may indicate that implicit attitudes, which are automatic responses and outside of conscious control (Greenwald & Banaji, 1995), are easier to report because these attitudes are not affected by social desirability bias or feelings of an 'intrusive threat' or 'threat of sanctions'. Even though research indicating the relationship between explicit and implicit attitudes has been inconsistent (Nosek, 2005; Teachman et al., 2003), these two types of attitudes are considered to be related, even though they are distinct constructs (Nosek & Smyth, 2007). Implicit and explicit attitudes should therefore be correlated, unless study participants deliberately control their explicit responses (Fazio & Olson, 2003). Therefore, one important variable that might moderate the relationship between the two types of attitudes is the social sensitivity of the topic (Greenwald, Poehlman, Uhlmann, & Banaji, 2009; Hofmann et al., 2005).

We consider attitudes toward obesity to be a sensitive area, therefore it is possible to suggest that there may be an ambivalence between these two constructs of attitudes. The ambivalence and contradiction in attitudes that we found could indicate that ICU nurses experienced conflict among what they personally believed, their automatic implicit responses, what they thought were appropriate professional attitudes and what they thought were socially correct attitudes. Their ambivalence may therefore have resulted from social desirability bias which is a tendency to present oneself in a way that fits social norms, is socially acceptable and avoids criticism from others (King & Bruner, 2000, p. 81). Such bias is most likely to be seen in relation to sensitive topics (King & Bruner, 2000).

The published ethical guidelines for nurses, and the 'Description of functions' for ICU nurses, are based on moral values (International Council of Nurses, 2012; Norsk sykepleieforbunds landsgruppe av intensivsykepleiere, 2017; Terkamo-Moisio et al., 2017). These guidelines provide ethical standards for nursing care and are one of the most important tools to help nurses deal with ethical questions and dilemmas (Norsk sykepleierforbund, 2011). The guidelines emphasise the importance of nursing care for all patients regardless of their differentness, and state that nurses should pay special attention to vulnerable groups (International

Council of Nurses, 2012). Our results suggest an inner conflict between nurses' attitudes and beliefs and their ethical guidelines. It is certainly not acceptable to report that obese ICU patients are, for example, worthless, stupid or bad, but it is perhaps more acceptable to report that these patients are lazy and have no willpower. Even so, the ICU nurses in Study III reported obese individuals as worse ('bad versus good') than normal weight individuals. These results are comparable to a study investigating nurse practitioners' attitudes and beliefs about obesity; these nurses reported overweight and obese persons to be not as good as others (Ward-Smith & Peterson, 2016). Interestingly, Tomiyama et al. (2015) found that obesity researchers' and health professionals' levels of implicit preferences toward thin over thick persons in 2013 decreased when compared with 2001; however, their explicit attitudes increased. The researcher found that the participants from 2013 reported higher explicit anti-fat bias according to bad and lazy compared with 2001, but there were no differences in the two samples according to the explicit anti-fat bias worthless and stupid. Furthermore, the measures of bad and lazy were reported more in a pro-thin direction than the measures of worthless and stupid. The same pattern of more pro-thin attitudes according to bad and lazy compared with worthless and stupid was also seen in the study of Schwartz et al. (2003). These results are intriguing because even though we did not compare attitudes measured on several occasions, it seems that the attitudes of bad and lazy could be more common and acceptable attitudes among health professionals than reporting that overweight individuals are stupid and worthless. The explicit bias scale 'bad versus good' was positively correlated with 'lazy versus motivated', the AFA dislike and AFA willpower in Study III, and not correlated with, for example, 'stupid versus smart' or 'worthless versus valuable'. Furthermore, 'stupid versus smart' and 'worthless versus valuable' was correlated (study III). This could indicate that there might be a link between the ICU nurses' beliefs about obese individuals being lazier than thin people and perceiving obese individuals as worse than normal weight persons. However, no correlations between these measures were found in Study II.

The existence of ambivalence and inner conflict among ICU nurses can also be explained by the theory of Crandall and Eshleman (2003, p. 414), who describe this type of ambivalence or contrariness by arguing that 'expression of prejudice is marked by a deep conflict between a desire to express an emotion and, at the same time, to maintain values and self-concepts that conflict with prejudice.' Furthermore, these authors suggest that genuine prejudices are often not expressed directly, but are covert owing to norms, values and beliefs that suppress them; they are only expressed when the person has created some kind of justification for them, such as attributions or stereotypes (C. S. Crandall et al., 2003, p. 414). The belief that overweight and obese people are responsible for their weight (the attribution of controllability) is one of the most well-established predictors of anti-fat attitudes (C. S. Crandall & Reser, 2005; DeJong, 1980). Crandall and Biernat (1990) have argued that in societies dominated by individualism, people believe that individuals are responsible for their own lives and get what they deserve according to their personal effort. This could lead to the widespread belief that overweight and obesity is self-inflicted and therefore

under personal control (C. S. Crandall & Biernat, 1990). Crandall (1994) has suggested that there is no reason to have negative attitudes toward obese individuals unless the person is responsible for his/her weight. These results may indicate that ICU nurses' belief that obesity stems from a lack of willpower is a justification of anti-fat attitudes.

The thesis results support Crandall's (2003) theory that attitudes are easier to express when one has found a justification for one's beliefs. ICU nurses' attitudes and beliefs that thick people had less willpower and were lazier than thin people, and that ultimately obesity is a self-inflicted condition, may constitute such justifications (which were apparent in all three studies). These attitudes and beliefs are congruent with findings from several other studies indicating that in the West, people tend to believe that obese individuals are to blame for their weight (Phelan et al., 2014; Schwartz et al., 2003). A Swedish study of 2,436 participants from a general population found that a greater belief in the controllability of weight predicted more negative attitudes (Hansson & Rasmussen, 2014). Wang et al. (2004) revealed that overweight individuals were having strong implicit preferences for thin over thick people and reported explicit beliefs that fat people are lazier and less motivated than thin people. Another interesting finding can be found in the study of Puhl et al. (2015), who investigated explicit weight bias among 2,866 individuals from Canada, the United States, Iceland and Australia. Explicit weight bias was consistent across the countries. The researchers found that the beliefs that obesity is because of a lack of willpower and personal responsibility predicted a stronger weight bias.

The definition of willpower is 'control exerted to do something or restrain impulses' (Willpower, n.a), while lazy is 'unwilling to work or use energy', or 'characterized by lack of effort and activity' (Lazy, n.a). Furthermore, bad is defined as 'having undesirable or negative qualities' (Bad, n.a.). The ICU nurses could perceive 'lack of effort and less control exerted' as two undesirable and negative qualities and, thereby, a justification for finding obese persons as not as good as those with a normal weight. Furthermore, lazy and willpower are both considered to be stereotypes, and one could question if it is easier for the nurses to hold negative stereotypes instead of attitudes because stereotypes are beliefs about a whole group of individuals instead of attitudes towards one single person (Eagly & Chaiken, 1993). Holding stereotypes towards a group could be expected as something that is not personal like holding negative attitudes toward one individual would be, especially considering these nurses are working very close with their patients. However, in both Studies II and III, the nurses reported higher scores according to implicit attitudes than implicit stereotypes (higher scores indicate stronger anti-fat bias). Because implicit attitudes are automatic processes not affected by social desirability biases (Hofmann et al., 2005; Manns-James, 2015), this could be because of the social sensitivity of the issue. Comparable results were also seen in studies investigating health professionals, health professionals specialising in obesity and obesity researchers attitudes, here showing that the implicit attitude 'bad versus good' was scored higher than the implicit stereotypes 'lazy versus motivated, 'worthless versus valuable' and 'stupid versus smart' (Schwartz et al., 2003; Tomiyama et al., 2015).

Even though it is widely acknowledged that body weight is regulated through a balance between energy intake and energy expenditure, the aetiology of obesity is very complex (Rojas et al., 2013). It could be expected that highly trained ICU nurses should hold knowledge about this complexity and thereby not report stereotypical beliefs that obese individuals are lazier and have a lower willpower compared with normal weight individuals. However, research on anti-fat bias reduction-strategies has revealed some mixed results (Dánielsdóttir, O'Brien, & Ciao, 2010). Teachman et al. (2003) showed that informing about genetic factors regarding obesity and provoking empathy by informing about discrimination did not lower bias towards obese people. In another study among preservice health students, informing about uncontrollable reasons for obesity such as genetics and environmental and social cultural influences decreased implicit 'good-bad' and 'motivated-lazy' attitudes, while informing about diet and exercise increased the implicit 'motivated-lazy' attitudes (O'Brien, Puhl, Latner, Mir, & Hunter, 2010). Gujral et al. (2011) found that nurses working at hospitals receiving bariatric sensitivity training had a decrease in their anti-fat attitudes, but there were no differences in their beliefs compared with nurses not receiving such training. These findings indicate that more knowledge about obesity does not always lead to more positive attitudes. Our expectations that ICU nurses' training in caring for critically ill patients could lead to fewer anti-fat attitudes was not fully fulfilled because these nurses reported negative attitudes, even though some of these attitudes were reported as small or even neutral. However, some of the nurses in Study I had a desire to improve their knowledge about the complexity of obesity and recognised that their attitudes reflected the social view because they did not have a better understanding of the complex issues of obesity than others.

Seen together, ICU nurses' experiences in caring for obese ICU patients and their attitudes leading to a belief that the obese ICU patient were different from normal weight patients in many ways. First, they experienced these patients as visibly different, reflecting what Goffman (1963) termed 'abominations of the body'. People in this category are visibly different owing to physical malformations such as excessive weight. This visible differentness affected how obese patients were regarded in the ICU (Study I); all the nurses were aware of the obese patients' weight and size, and the jargon used to describe them was different to that used to describe normal weight patients. Second, these results fit into the stigma category that contains persons considered to have a weakness of character (Goffman, 1963), as the terms 'lazy' and 'lack of willpower' are attributes related to the belief that obese individuals are responsible for their weight (C. S. Crandall, 1994) and that being overweight is therefore a personal weakness.

The use of these two stigma categories and other reported experiences and attitudes indicate that nurses perceived obese patients as individuals with a discrediting virtual social identity. Our society and culture determine which category a person belongs to and what characteristics they are expected to possess. When we meet a new person, we already know what category he belongs to and what his characteristics are, based on his appearance. We even have specific expectations of him (Goffman, 1963). Society sets norms as ideals

or standards that apply to our physical appearance. As Western society considers thinness as ideal, obese persons may belong to a special category outside of this ideal. This may lead ICU nurses to stigmatise a whole category of patients based only on assumptions about people who belong to that category. These patients are not perceived in terms of their actual social identity which is the characteristics the patients actually possess. Nurses may stigmatise these patients solely because of their visible differentness based on predetermined societal beliefs about their condition.

Because of these stigmas, the stigmatised person may be seen as ‘not quite human’ (Goffman, 1963, p. 15). This was clearly seen in Study I, in which nurses’ attitudes and beliefs reflected a perception of obese patients as ‘big bodies’ instead of as individuals. It was only when nurses got to know the patients that they realised that the patients were individuals like all other patients. According to Goffman (1963), contacts between strangers often lead to stereotypical reactions, but these reactions decrease when people get to know each other (Goffman, 1963). Evidence for this was found in a study by Shea and Gagnon (2015), who revealed that ICU nurses tried to ‘get to know their obese patients’ as a way of seeing beyond body size and connecting with the patient in a more personal way.

9.2 Attitudes and behavioural intention

The TPB suggests that there is a link between attitudes, behavioural intention and behaviour. Furthermore, despite the expectation that health professionals would endeavour to treat all patients equally, there is evidence that negative attitudes toward obesity may affect behaviour and care (Phelan et al., 2015). Therefore, it was important not only to explore ICU nurses’ attitudes toward obese ICU patients, but also to investigate their behavioural intentions and if nurses’ attitudes were associated with their behavioural intentions toward obese ICU patients.

A positive result was that ICU nurses endeavoured to care for all patients regardless of their weight (Study I), and generally reported their intention to help obese ICU patients immediately (Study II and Study III). Another positive result was that ICU nurses’ attitudes were not associated with their behavioural intentions. However, male gender was negatively associated with such intentions, indicating that male ICU nurses were less willing to help obese patients immediately. Furthermore, the ICU nurses found it emotionally challenging caring for obese patients owing to physical challenges, the vulnerability of the patients and their own negative attitudes and beliefs (Study I). Physical issues such as heavy lifting and the fear of injuries resulted in an unwillingness to care for these patients. Hence, their endeavour of providing good care to all patients were characterised by ambivalence; they found themselves questioning whether obese patients were entitled to the same care as normal weight patients due to the physically demanding work and the nurses’ beliefs that obesity were self-inflicted.

There could be several suggestions for the nurses' willingness to care for an obese ICU patient immediately and for the lack of associations between their implicit and explicit attitudes and behavioural intention. One suggestion is that the nurses' willingness to care for all patients independent of their condition is their professional willingness and would therefore not be affected by their attitudes. This suggestion is supported by the study of Shea and Gagnon (2015), who revealed that the nurses at an ICU wanted to provide the same level of care to all patients. However, Ajzen et al. (2004) argued that there is a strong tendency for people to overestimate the possibility that they will engage in socially desirable behaviours. This argument leads to the second suggestion: the core values of nursing care, such as the previously described ethical guidelines for nurses, and the 'description of functions' for ICU nurses (International Council of Nurses, 2012; Norsk sykepleieforbunds landsgruppe av intensivsykepleiere, 2017; Terkamo-Moisio et al., 2017), which are both based on moral values and related to, for example, treating all patients equally, is an important norm and might have a strong influence on the nurses' behavioural intentions. These norms might be related to the salient antecedents 'normative beliefs' from the TPB. Ajzen (2005, p. 57) argued that normative beliefs are the person's perceptions about important people's desire to perform or not perform a behaviour. In other words, the ICU nurses' beliefs about their coworker's approval or disapproval in performing the behaviour in accordance with the above-mentioned moral values. In this case, deciding to care for the obese ICU patient immediately would be expected to be the right thing to do according to other nurses. It is argued that acting in accordance with certain attitudes is easier if there is a lack of, for example, social norms (Bohner & Wänke, 2014).

Third, another issue is the presentation of questions in the survey related to ICU nurses' attitudes and beliefs. It is suggested that the attitude-behaviour correlation can increase or decrease if one thinks about why one holds an attitude (Bohner & Wänke, 2014). This could, in turn, be linked to 'subjective norms' because thinking about attitudes indeed could provoke thoughts about norms for proper behaviour, increasing the reported willingness of caring for obese ICU patients immediately.

A fourth suggestion of the willingness of caring could also be related to the ICU nurses' 'control beliefs', which are their beliefs about factors that could improve or hinder their behaviours, which again leads to 'perceived behavioural control' (Ajzen, 1991). In this case, the vignettes were designed as realistic, not complicated real-life situations. It would be assumed that the nurses could imagine themselves in these situations and have thoughts about that it would be possible to choose to care for the obese ICU patient immediately.

An explanation of the lack of associations between the ICU nurses' attitudes and behavioural intentions could be because of some of the measurements in Study III. According to Ajzen and Fishbein (1977), the four measurement elements of action, target, context and time should correspond or be similar if the relation between attitude and behaviour is strong. We did not design the attitude measures according to the TPB. Furthermore, in the regression model, we used the

collapsed explicit bias scale and the total AFA questionnaire instead of the subscales as independent variables. Because the explicit bias scale consists of four different attitude and stereotype concepts and the AFA questionnaire includes three different aspects, there could be a risk that some associations between explicit or implicit attitudes and behavioural intention were missed. A question here is if the action element described as which kind of attitudes are measured should have been more nuanced (using the subscales) and thereby would have corresponded better with the behavioural intention. However, as previously mentioned, it is not recommended to include both subscales and the total scales in a regression model because of the risk of singularity (Pallant, 2013). Furthermore, the challenges of not having enough participants to conduct a regression analysis with all the subscales leads to a decision of only including collapsed scales.

Finally, our results also suggest that the lack of associations between attitudes and behavioural intentions could be because of the design of the vignettes. Behaviours consist not only of actions, such as nurses' behavioural intentions or willingness to care for obese ICU patients, but also include, for example, verbal behaviours (Behaviour, 2018) or body language. The nurses in Study I were aware of what they called 'careless and negative comments' about the obese patients. These negative attitudes were expressed verbally or even acted out in body language. Such behavioural intentions were not included in the vignettes. Research shows that implicit attitudes can predict impulsive and uncontrolled behaviour better than explicit attitudes (Dovidio et al., 2002; Friese et al., 2008; Greenwald, Poehlman, Uhlmann, Banaji, et al., 2009). Study II and Study III presented evidence that the nurses held negative implicit attitudes and stereotypes that in turn could have generated more impulsive behaviours and body language. Furthermore, the nurses in Study I reported that they were concerned that obese patients could perceive nurses' body language and hear negative comments. This was experienced as emotionally difficult for the nurses. The nurses' worries about patients perceiving these attitudes are important, because many ICU patients recall or have clear memories of their ICU stay (Alasad et al., 2015). Creel and Tillman (2011) revealed that obese women experienced unintentional harm when they were talked to by nurses; this could be verbally or nonverbally and was experienced as spiritually, emotionally or psychologically hurtful. Stigma was conveyed by the way the nurses looked at them or in the way they touched the patients (Creel & Tillman, 2011). However, including these more impulsive or nonverbal behaviours in the vignettes could have been difficult. Furthermore, the nurses still would have time to consider their answers, so their behavioural intentions would probably have been affected by their explicit attitudes. Using a different approach such as, for example, observational studies would have been more appropriate for measuring more impulsive or nonverbal behaviours.

Even though, there were no associations between attitudes and behavioural intentions, the perception of care was characterised by ambivalence, which was seen in Study I. Support for this view comes from a study by Shea and Gagnon (2015), who found that nurses' experiences of providing care to obese ICU

patients were affected by physical resources; that issues such as avoidance, reluctance and unwillingness were common in nurses caring for obese patients; and that the perception that obese patients were to blame for being sick could lead nurses to provide less nursing care. Tanneberger and Ciupitu-Plath (2018) revealed that there was an association between nurses' beliefs about weight controllability and their perceptions of obese patients being treated differently by themselves or other nurses. Furthermore, 54.0 % of the nurses in the study by Akman et al. (2010) reported that they would prefer to provide healthcare to a normal weight patient rather than to an obese patient. These researchers also found that professional practice patterns toward obese patients were associated with the healthcare professionals attitudes (Akman et al., 2010). There is a chance that nurses' unwillingness or ambivalence in caring for obese patients might be perceived by the patients. This could be problematic for ICU patients because having trust in staff is of the greatest importance compared with other important issues in relation to strengthening and empowering when being cared for (Wåhlin, Samuelsson, & Ågren, 2017). Furthermore, ICU patients have reported that relationships and a caring atmosphere are more important than issues related to, for example, physical help (Wåhlin et al., 2017). This is also confirmed by the results from the study of Creel and Tillman (2011), where obese women experienced their illness as an inconvenience to the nurses and felt stigmatised when they perceived the care as reluctant. Such findings correspond with Study I and the nurses' experiences of the patients feeling inconvenienced because of their weight and the nurses' heavy workload.

One of the issues of this ambivalence might be the physically demanding job of caring for obese patients, which clearly was experienced among the nurses in Study I. According to the TPB, one of the salient variables of control beliefs is based on past experiences or second-hand information, which can be important determinants of behavioural intentions (Ajzen, 1991). The nurses all had experiences of caring for obese ICU patients, and these past experiences might have been an important factor of the ambivalence and unwillingness of caring for these patients. This view is supported by studies indicating that nurses hold more negative attitudes towards obese individuals than student nurses do (Poon & Tarrant, 2009; Yılmaz & Yabancı Ayhan, 2019). Furthermore, when comparing weight bias from 2001 to 2013, Tomiyama et al. (2015) revealed that researchers and health professionals with no clinical contact with obese patients had no increase in explicit bias, while those with clinical contact with such patients had an increase in explicit bias. Poon and Tarrant (2009) revealed that practicing nurses found caring for obese adults stressful and physically exhausting compared with student nurses. One of the reasons may be the experiences related to the physically demanding work of caring for obese patients.

It is common for ICU nurses to report work-related musculoskeletal problems because of their physically demanding work in general (June & Cho, 2011; Sezgin & Esin, 2015). An example is the study on 702 Chinese ICU nurses revealing that the nurses reported at least one work-related musculoskeletal disease within the previous year (Yang, Lu, Zeng, Wang, & Li, 2019). Furthermore, there is evidence that work-related musculoskeletal risk in the back,

knees, shoulders and wrist increases among nurses when they care for overweight or obese patients (Choi & Brings, 2015). Fear of injuries, which were experienced among the nurses in Study I, may therefore be an important factor in the ambivalence of caring for these patients. This was also seen in the study of Altun Uğraşet et al. (2017), who found that some of the reasons that surgical nurses were unwilling to care for obese patients included back pain, fear of dropping the patient and inadequate equipment. It is argued that weight is used to tailor the equipment to obese patients instead of to their body size. This results in equipment that does not always fit with the different body shapes of these patients and makes the care even more physically demanding (Hales et al., 2017).

Looking at this ambivalence, another issue is the ICU nurses' question if obese ICU patients are entitled to the same care as normal weight patients because of the physically demanding work and the beliefs that obesity is self-inflicted (Study I). These findings seem to reflect the ongoing debate in academic articles and discussions (Sharkey & Gillam, 2010) about the following moral question: 'Whether the extent to which a disease is a result of individual choices should be allowed to affect the degree to which it is given priority?' (Cappelen & Norheim, 2006, p. 312). The background for such a question is, according to Cappelen and Norheim (2016), the ever-increasing health cost with increasing interventions and the public's unwillingness to pay for these interventions. Furthermore, Sharkey and Gilliam (2010) argued that the debate about resource allocation also centres on questions about patients' characteristics according to decision making, such as an individual's relationship to others (i.e., criminal), an individual's personal attributes (i.e., cultural background) and the individual's relationship to their illness (i.e., lifestyle factors). In a health care context, the individual's relationship to their illness in the form of lifestyle factors is especially relevant because 'life-style diseases' (i.e., obesity and chronic obstructive pulmonary disease [COPD]) cause a variety of health problems. The nurses in Study I, for example, found it difficult when the obese patients did not share the same perceptions of how to live your life.

A study that included the Danish public revealed that publicly funded obesity treatment had much less support compared with public funded treatment for smoking-related diseases such as lung cancer and COPD (Lund, Nielsen, & Sandøe, 2014). These findings are surprisingly because COPD also is seen as a lifestyle disease. However, the authors suggested that obesity is perceived as a self-inflicted condition and only reflects a lifestyle choice, while COPD and lung cancer can be caused by other things (Lund et al., 2014). The opposite results were found in a study exploring the extent to which Norwegian physicians found personal responsibility for health relevant in prioritisation. Forty-four percent of the physicians considered information about smoking relevant to priority-setting decisions, while only 26.7% reported information about overweight and obesity relevant to priority decisions (Bringedal & Feiring, 2011). However, 44% of the physicians agreed partly, completely or neutrally to the statement that 'healthcare priority should depend on the patients personal responsibility for the disease' (Bringedal & Feiring, 2011, p. 360). The results correspond with a study about the views of health care professionals and laypersons concerning the relevance of

health-related behaviours in prioritising patients (Pinho & Pinto Borges, 2019). The authors revealed that both group of participants found information about drug abuse, excessive alcohol consumption and smoking more important than information about being overweight or a lack of physical activity in relation to priority-setting decisions. However, when compared with lay persons, the health professionals (consisting of 55% physicians and 45% nurses) reported that information about health-related behaviours according to prioritisation was more relevant (Pinho & Pinto Borges, 2019). On the one hand, these results indicate that both among the public in general and among healthcare providers specifically the question about if a disease is a result of individual choices and if such lifestyle choices should affect the degree of treatment or priorities in health care are prominent. Furthermore, these results indicate that most seem to report that lifestyle factors are important in decision making, which correspond with the ICU nurses' question. On the other hand, the legal regulations on prioritising health services in Norway state that there are only two concerns to be considered in priority decisions: expected benefit of healthcare and the severity of the disease (Forskrift om prioritering av helsetjenester, 2001). Questioning if obese ICU patients are entitled to the same care as normal weight patients does certainly not conform with these regulations and emphasises the ICU nurses' ambivalence of caring for such patients.

9.3 Differences among the ICU nurses

Another example of ambivalence and contradiction were the differences in reported attitudes and stereotypes among the ICU nurses. The differences in attitudes reported in Study III indicated that ICU nurses did not comprise one congruent in-group of 'normals'. There was a difference in gender: male ICU nurses reported a greater belief that obesity stems from a lack of willpower, and the male gender was also associated with 0.46 less intention to help the obese patient immediately. These results are in accord with those of several other studies showing that males have more negative attitudes than females (Flint et al., 2015; Magallares & Morales, 2013; R. Puhl et al., 2015). It is difficult to understand why there was a gender difference in attitudes, as both female and male participants were qualified ICU nurses and worked in ICUs. It can be assumed that they experienced the same influences from the training, the ICU context and from society's perception of the thin ideal. However, Aruguete, Yates and Edman (2006) have suggested that there may be differences in how males and females incorporate strategies to handle body shape. Compared with women, men experience less weight dissatisfaction (Buote, Wilson, Strahan, Gazzola, & Papps, 2011; Tsai et al., 2016) and make fewer weight loss attempts (Tsai et al., 2016). This may be a result of gender differences in exposure to norms in everyday life (Buote et al., 2011). According to Aruguete et al. (2006), females tend to internalise the social ideal of slimness, whereas men externalise physical ideals. Such externalisation results in a focus on other individuals' bodies. There were no gender differences in Study III in implicit attitudes and stereotypes, behavioural intention or explicit attitudes, except for the explicit bias

scale willpower. This could indicate that if male ICU nurses externalise their perception of body size and has another exposure to norms; they may find it easier to report that obese individuals have less willpower than normal weight persons compared with female ICU nurses. This could also be the reason that the male gender was associated with behavioural intention. However, if the gender differences would be clinically significant is not possible to predict.

Participants age was negatively correlated with 'lazy versus motivated' in Study III. Younger ICU nurses were more likely than older nurses to find obese ICU patients lazier than normal weight patients. The same pattern was found in studies by Flint et al. (2015) and Phelan et al. (2014), who reported that younger participants believed more strongly that obesity is a controllable condition. Younger ICU nurses may have a less nuanced way of perceiving weight problems than older nurses, who have more work and life experiences; younger nurses may therefore find it easier to report such beliefs.

There were no statistically significant differences in implicit or explicit attitudes or behavioural intention among ICU nurses with different self-reported weight in Study III. It might be expected that the lived experience of being overweight or obese would provide these ICU nurses with a deeper understanding of the condition and that they would be less likely to report pro-thin preferences or attitudes. This expectation reflects social identity theory, which predicts that in-group members are more likely to favour their own members and view persons in the out-group more negatively (Tajfel, 1982). However, the thesis results do not support this theory. Rather, the results support those of several previous studies showing that unlike members of other stigmatised groups, obese persons do not appear to have more positive attitudes toward their group (C. S. Crandall, 1994; Rudman, Feinberg, & Fairchild, 2002; Wang, Brownell, & Wadden, 2004). For example, Akman et al. (2010) investigated weight bias among primary care health professionals and found no significant attitude differences between normal and overweight participants. However, some studies have revealed that among participants in the highest BMI groups, anti-fat attitudes are present but are slightly lower than those with a lower BMI (Schwartz et al., 2003; Schwartz et al., 2006). Schwartz et al. (2003) revealed that obese health professionals specialising in obesity had implicit preferences for thin over thick persons and implicit stereotypes that obese individuals were lazier than thin persons; however, participants with higher BMI had lower IAT attitudes regarding 'smart versus stupid' and lower explicit attitudes regarding 'bad versus good'. In a study on the influence of own body weight on implicit and explicit anti-fat bias, Schwartz et al. (2006) found that anti-fat bias was evident among the most obese participants, but less prevalent in highest weight group.

Because of their specialised training, overweight and very overweight ICU nurses may be aware of obesity as a risk factor for diseases and the complications that can arise from critical illness. Working in an ICU context, where obesity may be seen as a disease, and awareness of other colleagues' negative attitudes may result in anti-fat attitudes. Furthermore, medical knowledge about the condition, and the prevalence of anti-fat attitudes on the ward, may have led

overweight and obese ICU nurses to refrain from identifying themselves with a stigmatised group. This is what Goffman (1963) terms 'identity ambivalence'. Being part of a stigmatised group may increase the chance of being discredited; identity ambivalence occurs when a person who belongs to a stigmatised group amplifies the negative characteristics that belong to this group. To enter or to be part of a stigmatised group implies both own and public recognition of the stigma and contributes to the identity ambivalence of the stigmatised. Subsequently, neither full acceptance of their own group nor complete release from it is possible (Goffman, 1963). Goffman (1963) argues that becoming part of a stigmatised group may require the identification of the stigmatised characteristics, a process which has already been learnt through societal norms. This can lead to feelings of disgust against the group, but also to a feeling of shame (and additional shame about one's own shamefulness). Overweight and very overweight ICU nurses in this study may have experienced the negative attitudes prevalent on the wards and found it difficult to identify themselves with the stigmatised group, a response that served to protect themselves. Furthermore, like normal weight individuals, overweight and very overweight ICU nurses may internalise the social stigma about weight that exists in society in such a way that they do not identify themselves with obese patients. Goffman (1963) argued that stigma is not about dividing the 'normal' and the stigmatised into two groups; rather, stigma is more like a social role, and both stigmatised and normal individuals can participate in both roles. Therefore, 'normal' individuals can stigmatise in some situations and be stigmatised themselves in other contexts.

10 IMPLICATIONS

The results from this thesis may have implications for policy makers, clinical practice, education and future research.

ICU nurses' ambivalent attitudes, stereotypes, beliefs and behavioural intentions should be acknowledged in clinical practice, as these nurses play a vital role in caring for vulnerable obese ICU patients. It is important to provide time for ICU nurses to reflect on and discuss the emotional and physical challenges of caring for such patients to increase nurses' awareness of and focus on these issues. Allowing nurses time to reflect with colleagues could help to develop strategies to reduce anti-fat attitudes.

The results from this thesis should be utilised in both educational and hospital settings with respect to knowledge about the genetics and causes of obesity. Providing ICU nurses with greater knowledge about the causes of obesity, how anti-fat attitudes are perceived by obese patients and the implications of such attitudes for obese patients could reduce anti-fat attitudes. Furthermore, educational settings should focus on providing nurses with more knowledge about how to care for obese patients.

The increased admission of obese patients can be a serious problem owing to the financial resources needed to obtain customised equipment and sufficient staff. Owing to the physically demanding work involved in caring for obese ICU patients, the hospital policy makers and clinical setting should increase financial support to help to acquire appropriate equipment and enough staff to improve the care of obese patients and to avoid injuries and frustration among the ICU nurses in care situations.

Furthermore, policy makers should acknowledge the complexity of obesity by developing campaigns to tackle anti-fat attitudes among healthcare professionals.

In light of the results, further research should focus on investigating nurses' behavioural intentions using experimental studies. Future research could also explore obese ICU patients' experiences of critical illness in relation to ICU nurses' attitudes and behaviours. Such research could make an important contribution to understanding the complex attitudes prevalent in the ICU context.

11 CONCLUSIONS

To the researcher's knowledge, this thesis is the first to investigate qualified ICU nurses' attitudes toward obese ICU patients and to examine whether their attitudes are associated with behavioural intentions. The thesis contributes potentially new and deeper insights into qualified ICU nurses' implicit and explicit attitudes toward obese ICU patients, their behavioural intentions and their experiences in caring for such patients.

The ICU nurses revealed ambivalent and contradictory attitudes, stereotypes, beliefs and behavioural intentions in caring for obese patients. Caring for such patients may be emotionally difficult for these nurses owing to their ethical values and endeavour of providing equal care to all patients regardless of their weight, while simultaneously having a preference for thin over thick persons, holding various anti-fat attitudes and experiencing caring for these patients as physically demanding. However, the ICU nurses reported an intention to care for these patients, and their attitudes were not associated with their behavioural intentions.

Despite that ICU nurses are specially trained nurses, it appears that these nurses share the same attitudes toward obese persons as other healthcare professionals and the society in general.

The results from this thesis may help efforts to improve attitudes in the ICU setting and enhance care for vulnerable obese ICU patients.

Furthermore, the results have international relevance because of the global overweight and obesity epidemic, leading to an increasing numbers of obese ICU patients admitted to ICUs.

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Appendices

Paper I-III

1. Information to ICU nurses about Study I
2. Information about the study and informed consent form to participants in Study I
3. Interview guide Study I
4. Information about the study and informed consent form to participants in Study II
5. Information about the study and informed consent form to participants in Study II (focus group interviews)
6. Vignettes, Study II
7. English version of the Anti-fat Attitude questionnaire
8. Norwegian version of the Anti-fat Attitude questionnaire
9. Permission to use the Anti-fat Attitude questionnaire
10. Interview guide for focus group interviews in Study II
11. Translation process for Study II
12. E-mail invitation to ICU nurses to participate in Study III (Hospital)
13. E-mail invitation to ICU nurses to participate in Study III (Facebook)
14. Revised vignettes for Study III
15. Regional Committees for Medical and Health Research Ethics
16. Approval of the PhD project from the Norwegian Centre for Research Data
17. Approval of changes of the PhD project from the Norwegian Centre for Research Data
18. Approval Study I
19. Approval Study I
20. Approval of changes of the PhD project from the Norwegian Centre for Research Data

Paper I

Intensive care nurses' experiences of caring for obese intensive care patients: A hermeneutic study

Paper II

Design and psychometric testing of instruments to measure qualified intensive care nurses' attitudes toward obese intensive care patients

Paper III

Intensive care nurses' implicit and explicit attitudes and their behavioural intentions towards obese intensive care patients

Appendix 1

Information to ICU nurses about Study I

FORSKNINGSPROSJEKT OM INTENSIVSYKEPLEIERES HOLDNINGER OG ERFARINGER I FORHOLD TIL PLEIE OG OMSORG FOR INTENSIVPASIENTER MED FEDME

Mitt navn er Nastasja Robstad. Jeg er utdannet intensivsykepleier og har arbeidet en del år på intensivavdelingen på Sørlandet sykehus i Kristiansand.

Nå er jeg ansatt som PhD kandidat ved Universitetet i Agder der jeg arbeider med et Doktorgradsprosjekt der vi skal se på intensivsykepleieres holdninger og erfaringer i forhold til pleie og omsorg av intensivpasienter med fedme. Det er utført lite forskning på intensivsykepleieres holdninger og deres erfaringer i forhold til denne pasientgruppen, derfor er det viktig å få mer kunnskap om temaet siden det blir flere og flere pasienter med fedme som legges inn på intensivavdelinger.

Forskningsprosjektet består av ulike delprosjekt der det brukes forskjellige metoder for at vi skal få en dypere forståelse av intensivsykepleieres erfaringer og holdninger.

Tirsdag 1. mars og eventuelt onsdag 2. mars kommer jeg til Intensivavdelingen ved Universitetssykehus og skal foreta individuelle intervju av intensivsykepleiere ansatt på intensivavdelingen. Intervjuenes varighet vil være mellom 20-45 minutter. Under intervjuene vil det blant annet bli stilt spørsmål om hvilke erfaringer intensivsykepleier har i forhold til pleie og behandling av intensivpasienter med fedme og hva man opplever kjennetegner denne pasientgruppen. Det er helt frivillig å delta i prosjektet, og de som er med kan trekke seg når som helst uten grunn. Kriterier for deltakelse er at du må være utdannet intensivsykepleier og ha minst 2 års arbeidserfaring som intensivsykepleier.

Jeg har fått tillatelse av Forskningsenheten ved Universitetssykehus og intensivavdelingen på sykehuset for å utføre intervjuene.

Setter stor pris på om noen har lyst til å stille opp på dette prosjektet.

Med hilsen

Nastasja Robstad

Appendix 2

Information about the study and informed consent form to participants in Study I

FORESPØRSEL OM DELTAKELSE I FORSKNINGSPROSJEKTET OM

INTENSIVSYKEPLEIERES HOLDNINGER TIL INTENSIVPASIENTER MED FEDME

Dette er et spørsmål til deg om å delta i et forskningsprosjekt der formålet med studien er å få kunnskap om intensivsykepleieres erfaringer i forhold til pleie og omsorg av intensivpasienten med fedme.

Studien er et PhD-prosjekt fra Universitet i Agder, Kristiansand.

HVA INNEBÆRER PROSJEKTET

Du vil delta i et individuelt intervju der du vil bli stilt spørsmål om dine erfaringer i forhold til pleie og omsorg for intensivpasienten med fedme. Jeg ønsker blant annet å stille spørsmål om hvordan du opplever det er å arbeide som intensivsykepleier, hvilke erfaringer du har i forhold til pleie og behandling av intensivpasienter med fedme og hva du opplever kjennetegner denne pasientgruppen.

Det vil bli gjort lydopptak av samtalen og du vil være en av ca 15 intensivsykepleiere som vil bli intervjuet.

Dataene fra intervjuene skal presenteres i en vitenskapelig artikkel som skal publiseres i et internasjonalt tidsskrift.

FRIVILLIG DELTAKELSE OG MULIGHET FOR Å TREKKE SITT SAMTYKKE

Rekrutteringen av intensivsykepleiere til dette prosjektet skjer via avdelingsleder på intensivavdelingen der du er ansatt.

Det er frivillig å delta i prosjektet. Dersom du ønsker å delta, undertegner du samtykkeerklæringen på siste side. Du kan når som helst og uten å oppgi noen grunn trekke ditt samtykke. Dersom du trekker deg fra prosjektet, kan du kreve å få slettet innsamlede opplysninger, med mindre opplysningene allerede er inngått i analyser eller brukt i vitenskapelige publikasjoner. Dersom du senere ønsker å trekke deg eller har spørsmål til prosjektet, kan du kontakte prosjektleder Liv Fegran, liv.fegran@uia.no, tlf. 38 14 18 94 eller PhD stipendiat Nastasja Robstad, nastasja.robstad@uia.no, tlf.38 14 22 57.

HVA SKJER MED INFORMASJONEN OM DEG?

Hvis du ønsker å lese det transkriberte materialet etter at intervjuet er skrevet ut som tekst, så har du mulighet til det.

Prosjektleder har ansvar for den daglige driften av forskningsprosjektet og at opplysninger blir behandlet på en sikker måte.

Det innsamlede datamaterialet vil bli anonymisert og vil sammen med lydopptak bli slettet ved prosjektslutt. Prosjektet planlegges avsluttet 01.12.19.

GODKJENNING

Studien er meldt til Norsk Samfunnsvitenskapelig Datatjeneste og Universitetssykehus.

SAMTYKKE TIL DELTAKELSE I PROSJEKTET

JEG ER VILLIG TIL Å DELTA I PROSJEKTET

Sted og dato

Deltakers signatur

Deltakers navn med trykte bokstaver

Jeg bekrefter å ha gitt informasjon om prosjektet

Sted og dato

Signatur

Rolle i prosjektet

Appendix 3

Interview guide for Study I

INTERVJUGUIDE

Hvilke erfaringer har intensivsykepleiere med omsorg og pleie av intensivpasienter med fedme

1. Hvordan opplever du at det er å arbeide som intensivsykepleier?
 - a. Kan du beskrive noen positive opplevelser?
 - b. Kan du beskrive noen negative opplevelser?

2. Hva opplever du kjennetegner den typiske intensivpasienten?
 - a. Høyteknologisk miljø?
 - b. Sårbare?
 - c. Fysiske utfordringer?

3. Hva opplever du kjennetegner intensivpasienten med fedme?
 - a. Høyteknologisk miljø?
 - b. Ekstra sårbare?
 - c. Fysiske utfordringer?

4. Kan du fortelle om dine erfaringer i forhold til pleie og omsorg av intensivpasienter med fedme?
 - a. Mottak?
 - b. Annet?
 - c. Fortell om en positiv situasjon?
 - d. Fortell om en negativ situasjon?

5. Hvordan tror du at intensivpasienten med fedme kan oppleve å være intensivpasient?

Appendix 4

Information about the study and informed consent form to participants in Study II (web-based test)

FORESPØRSEL OM DELTAKELSE I FORSKNINGSPROSJEKTET OM

OVERSETTELSE AV THE IMPLICIT ASSOCIATION TEST (IAT) OG THE ANTI-FAT ATTITUDE QUESTIONNAIRE (AFA).

Dette er et spørsmål til deg om å delta i et forskningsprosjekt der formålet med studien er å kvalitetssikre og oversette en web-basert test som kan måle holdninger. I denne studien gjelder det holdninger i forhold til overvekt og fedme hos intensivpasienter.

Studien er et PhD-prosjekt fra Universitet i Agder, Kristiansand.

HVA INNEBÆRER PROSJEKTET

Du vil bli bedt om å utføre en web-basert test. Testen er oversatt og tilpasset til norsk, og formålet med å ta denne testen er at vi skal undersøke om oversettelsen og tilpasningen til norsk er tilfredsstillende, og samtidig måle intensivsykepleieres holdninger. Til sammen vil det være ca 35 intensivsykepleiere som tar testen.

Dataene fra intervjuene skal presenteres i en vitenskapelig artikkel som skal publiseres i et internasjonalt tidsskrift.

FRIVILLIG DELTAKELSE OG MULIGHET FOR Å TREKKE SITT SAMTYKKE

Rekrutteringen av intensivsykepleiere til dette prosjektet skjer via avdelingsleder på intensivavdelingen der du er ansatt.

Det er frivillig å delta i prosjektet. Dersom du ønsker å delta, undertegner du samtykkeerklæringen på siste side. Du kan når som helst og uten å oppgi noen grunn trekke ditt samtykke. Dersom du trekker deg fra prosjektet, kan du kreve å få slettet innsamlede opplysninger, med mindre opplysningene allerede er inngått i analyser eller brukt i vitenskapelige publikasjoner. Dersom du senere ønsker å trekke deg eller har spørsmål til prosjektet, kan du kontakte prosjektleder Liv Fegran, liv.fegran@uia.no, tlf. 38 14 18 94 eller PhD stipendiat Nastasja Robstad, nastasja.robstad@uia.no, tlf. 38 14 22 57.

HVA SKJER MED INFORMASJONEN OM DEG?

Prosjektleder har ansvar for den daglige driften av forskningsprosjektet og at opplysninger blir behandlet på en sikker måte.

Det innsamlede datamaterialet er helt anonymisert. Prosjektet planlegges avsluttet 01.12.19.

GODKJENNING

Studien er meldt til Norsk Samfunnsvitenskapelig Datatjeneste og sykehuset der intervjuet skal foregå.

SAMTYKKE TIL DELTAKELSE I PROSJEKTET

JEG ER VILLIG TIL Å DELTA I PROSJEKTET

Sted og dato

Deltakers signatur

Deltakers navn med trykte bokstaver

Jeg bekrefter å ha gitt informasjon om prosjektet

Sted og dato

Signatur

Rolle i prosjektet

Appendix 5

Information about the study and informed consent form to participants in Study II (focus group interviews)

FORESPØRSEL OM DELTAKELSE I FORSKNINGSPROSJEKTET OM

OVERSETTELSE AV THE IMPLICIT ASSOCIATION TEST (IAT) OG THE ANTI-FAT ATTITUDE QUESTIONNAIRE (AFA).

Dette er et spørsmål til deg om å delta i et forskningsprosjekt der formålet med studien er å kvalitetssikre og oversette en web-basert test som kan måle holdninger. I denne studien gjelder det holdninger i forhold til overvekt og fedme hos intensivpasienter.

Studien er et PhD-prosjekt fra Universitet i Agder, Kristiansand.

HVA INNEBÆRER PROSJEKTET

Du vil delta i et fokusgruppeintervju der du først vil bli bedt om å utføre den web-baserte testen. Testen er oversatt og tilpasset til norsk, og formålet med fokusgruppeintervjuet er å validere oversettelsen av ord og setninger i selve testen og kontrollere at oversettelsen av introduksjon og instruksjon til hvordan testen skal utføres er forståelig. Under fokusgruppeintervjuet skal også vignetter fra testen diskuteres.

Det vil bli gjort lydopptak av samtalen og du vil være en av 8-10 intensivsykepleiere som vil bli intervjuet.

Dataene fra intervjuene skal presenteres i en vitenskapelig artikkel som skal publiseres i et internasjonalt tidsskrift.

FRIVILLIG DELTAKELSE OG MULIGHET FOR Å TREKKE SITT SAMTYKKE

Rekrutteringen av intensivsykepleiere til dette prosjektet skjer via avdelingsleder på intensivavdelingen der du er ansatt.

Det er frivillig å delta i prosjektet. Dersom du ønsker å delta, undertegner du samtykkeerklæringen på siste side. Du kan når som helst og uten å oppgi noen grunn trekke ditt samtykke. Dersom du trekker deg fra prosjektet, kan du kreve å få slettet innsamlede opplysninger, med mindre opplysningene allerede er inngått i analyser eller brukt i vitenskapelige publikasjoner. Dersom du senere ønsker å trekke deg eller har spørsmål til prosjektet, kan du kontakte prosjektleder Liv Fegran, liv.fegran@uia.no, tlf. 38 14 18 94 eller PhD stipendiat Nastasja Robstad, nastasja.robstad@uia.no, tlf. 38 14 22 57.

HVA SKJER MED INFORMASJONEN OM DEG?

Hvis du ønsker å lese det transkriberte materialet etter at intervjuet er skrevet ut som tekst, så har du mulighet til det.

Prosjektleder har ansvar for den daglige driften av forskningsprosjektet og at opplysninger blir behandlet på en sikker måte.

Det innsamlede datamaterialet vil bli anonymisert og vil sammen med lydopptak bli slettet ved prosjektslutt. Prosjektet planlegges avsluttet 01.12.19.

GODKJENNING

Studien er meldt til Norsk Samfunnsvitenskapelig Datatjeneste og sykehuset der intervjuet skal foregå.

SAMTYKKE TIL DELTAKELSE I PROSJEKTET

JEG ER VILLIG TIL Å DELTA I PROSJEKTET

Sted og dato

Deltakers signatur

Deltakers navn med trykte bokstaver

Jeg bekrefter å ha gitt informasjon om prosjektet

Sted og dato

Signatur

Rolle i prosjektet

Appendix 6

Vignettes, Study II

Vignetter Studie II

Vignett 1

Tenk deg følgende scenario:

Du har ansvaret for pasienten på stue 310. Åse, 47 år, 135 kg og sekretær er innlagt på grunn av smerteproblematikk i forbindelse med en ryggoperasjon. Hun trenger hyppig mobilisering, men nå har det gått lang tid siden siste mobilisering på grunn av travelhet i avdelingen.

Telefonen din ringer. Det er en god venn du ikke har hørt fra på lang tid. Hvor sannsynlig er det at du ville gjort følgende:

(a) Mobilisere Åse, ringe opp din venn etterpå.

Lite sannsynlig o o o o Meget sannsynlig

(b) Ta telefonen nå, mobilisere Åse senere.

Lite sannsynlig o o o o Meget sannsynlig

Vignett 2

Tenk deg følgende scenario:

Det er travelt på avdelingen og du har ansvar for Ole på stue 17. Han er 30 år, arbeider som it-konsulent, veier 180 kg, er gift og har en sønn. Han er innlagt på grunn av en alvorlig pneumoni med respirasjonsvansker og får intermitterende non-invasiv ventilasjon. Ole skulle ha vært snudd for over 2 timer siden, og du har ikke rukket å spise lunsj. Hvor sannsynlig er det at du ville gjort følgende:

(a) Gå til lunsj, snu Ole etterpå.

Lite sannsynlig o o o o Meget sannsynlig

(b) Snu Ole, gå til lunsj etterpå.

Lite sannsynlig o o o o Meget sannsynlig

Vignett 3

Tenk deg følgende scenario:

Det er fredag kveld, og du har ansvaret for Per som har fått en sepsis etter et stygt hundebitt i venstre arm. Han er 52 år, enslig, veier 155 kg, og er ikke i arbeid. Per burde bli flyttet over i en ny seng med bedre madrass for å unngå trykksår, men det er lite folk tilgjengelige for å hjelpe. Hvor sannsynlig er det at du ville gjort følgende:

(a) La andre sykepleiere flytte Per over i ny seng på en annen vakt.

Lite sannsynlig o o o o Meget sannsynlig

(b) Flytte Per over i ny seng på denne vekten.

Lite sannsynlig o o o o Meget sannsynlig

Vignett 4

Tenk deg følgende scenario:

Du kommer på jobb og ser at det er flere intensivsykepleiere som ikke har pasienter denne vekten. Du skal ha ansvar for Irene på stue 11. Hun er innlagt med respirasjonssvikt og ligger på respirator. Hun er 58 år, har mann og 4 voksne barn, veier 142 kg og er tidligere renholdsarbeider. På stue 12 ligger Kari, 88 år, veier 59 kilo og er innlagt etter et fall på sykehjemmet der hun har pådratt seg en bekkenfraktur. Hvor sannsynlig er det at du ville gjort følgende:

(a) Spørre om noen andre vil ha ansvaret for Irene slik at du kan være assistent for intensivsykepleier (assistere på rommet hos) hos Kari.

Lite sannsynlig o o o o Meget sannsynlig

(b) Ta ansvar for Irene og la noen andre være assistent for intensivsykepleier (assistere på rommet hos) hos Kari.

Lite sannsynlig o o o o Meget sannsynlig

Appendix 7

English version of the Anti-fat attitude questionnaire

Anti-fat Attitude questionnaire

I really don't like fat people much.

I don't have many friends that are fat.

I tend to think that people who are overweight are a little untrustworthy.

Although some fat people are surely smart, in general, I think they tend not to be quite as bright as normal weight people.

I have a hard time taking fat people too seriously.

Fat people make me feel somewhat uncomfortable.

If I were an employer looking to hire, I might avoid hiring a fat person.

I feel disgusted with myself when I gain weight.

One of the worst things that could happen to me would be if I gained 25 pounds.

I worry about becoming fat.

People who weigh too much could lose at least some part of their weight through a little exercise.

Some people are fat because they have no willpower.

Fat people tend to be fat pretty much through their own fault.

Appendix 8

Norwegian version of the Anti-fat Attitude questionnaire

Anti-fedme holdninger

1. Jeg liker egentlig ikke fete mennesker noe særlig.
2. Jeg har ikke mange venner som er fete.
3. Jeg har for vane å tenke at folk som er overvektige, ikke helt er til å stole på.
4. Selv om noen fete mennesker er smarte, så tenker jeg generelt at de ikke er like begavet som mennesker med normal vekt.
5. Jeg synes det er vanskelig å ta fete mennesker helt alvorlig.
6. Fete mennesker får meg til å føle meg litt ukomfortabel.
7. Hvis jeg var arbeidsgiver og skulle ansette noen, er det godt mulig jeg hadde latt være å ansette en fet person.
8. Jeg føler avsky overfor meg selv når jeg legger på meg.
9. Noe av det verste som kunne skjedd meg, var at jeg la på meg 10 kg.
10. Jeg bekymrer meg for å bli fet.
11. Mennesker som veier for mye kunne i hvert fall gå noe ned i vekt ved å trene litt.
12. Noen mennesker er fete fordi de ikke har noen viljestyrke.
13. Fete mennesker har ofte selv skyld i at de er fete.

Appendix 9

Permission to use the Anti-fat Attitude Questionnaire

From: Crandall, Chris S. <crandall@ku.edu>
Sent: Monday, November 7, 2016 12:22:20 AM
To: Anja Nastasja Robstad
Cc:
Subject: Re: Anti-Fat Attitudes scale

Yes, please do go ahead—use it for any non-commercial purpose. I only ask that you send me a copy of the text in Norwegian for my files.

-Chris Crandall

From: Anja Nastasja Robstad
Date: Friday, November 4, 2016 at 6:39 AM
To: Chris Crandall
Subject: Anti-Fat Attitudes scale

Dear Christian Crandall,

I am writing to you to enquire if it would be possible for me to use your Anti - Fat Attitudes scale in a study in my PhD project. I am a PhD research fellow from the University of Agder in Norway and are investigating intensive care (ICU) nurses attitudes towards obese intensive care patients.

One of the projects are consisting of a study were we are investigating ICU nurses implicit and explicit attitudes. We would like to use your scale to measure the nurses explicit attitudes.

If you give us permission to use the scale, we would like to translate the scale to Norwegian. The translation process will be conducted using guidelines from "Principles of Good Practice for the Translation and Cultural Adaptation Process for Patient-Reported Outcomes (PRO) Measures: Report of the ISPOR Task Force for Translation and Cultural Adaptation", (Wild et al, 2005).

I look forward to hearing from you.

Best regards

Nastasja Robstad
PhD kandidat / PhD research Fellow
Fakultet for helse- og idrettsvitenskap / Faculty of Health and Sport Sciences
Universitetet i Agder / University of Agder

Tlf: 0047 38 14 2257
E-mail: nastasja.robstad@uia.no

Appendix 10

Interview guide for focus group interviews in Study II

Spørsmålsguide til fokusgruppeintervju

1. Hvordan opplevde du instruksjonen til hvordan du skulle gjennomføre testen?
 - a. Var det noe du ikke forsto eller noe som var uklart?

2. Diskusjon rundt AFA:
 - a. Forsto du spørsmålene?
 - b. Var det noe du ikke forsto eller noe som var uklart?
 - c. Opplever du at spørsmålene kan fange opp holdninger om fedme?
 - d. Andre tanker?

3. Diskusjon rundt IAT ord:
 - a. Var det noen ord du ikke forsto?

4. Diskusjon rundt pasientvignetter.
 - a. Fortell hvordan du opplevde vignettene?
 - b. Var det noe du ikke forsto eller som var uklart?

Appendix 11

Translation process for Study II

Original AFA questionnaire	2. Forward translation 1	2. Forward translation 2	3. Reconciliation	4. Back translation	5. Back translation review	6. Harmonisation	7. Cognitive Debriefing
Anti-fat attitudes	Anti-fedme holdninger	Fordommer mot fete	Anti-fedme holdninger	Anti-obesity attitudes	Fedme= obesity Fat = fet Hvordan oversetter vi anti-fat?	Anti-fedme holdninger	Diskusjon rundt ordet fedme.
I really don't like fat people much.	Jeg liker egentlig ikke fete mennesker så godt.	Jeg liker egentlig ikke fete mennesker noe særlig.	Jeg liker egentlig ikke fete mennesker noe særlig.	I don't really like fat people very much.	Jeg liker egentlig ikke fete mennesker noe særlig.	Jeg liker egentlig ikke fete mennesker noe særlig.	Undersøkelsen ble opplevd som noe direkte.
I don't have many friends that are fat.	Jeg har ikke mange venner som er fete.	Jeg har ikke mange venner som er fete.	Jeg har ikke mange venner som er fete.	I don't have many friends who are fat.	Jeg har ikke mange venner som er fete.	Jeg har ikke mange venner som er fete.	Alle andre setninger ble oppfattet som enkle å forstå.
I tend to think that people who are overweight are a little untrustworthy.	Jeg pleier å tenke at overvektige mennesker er litt upålitelige.	Jeg mener vel kanskje egentlig at folk som er overvektige, ikke helt er til å stole på.	Jeg mener vel kanskje egentlig at folk som er overvektige, ikke helt er til å stole på.	I suppose I think that people who are overweight are maybe not totally trustworthy.	Tend eller suppose? Oversetter vi til: pleier å, mener vel, har en tendens til?	Jeg har for vane å tenke at folk som er overvektige, ikke helt er til å stole på.	
Although some fat people are surely smart, in general, I think they tend not to be quite as bright as normal weight people.	Selv om noen fete mennesker sikkert er smarte generelt, så tenker jeg de har en tendens til ikke å være så smarte som normalvektige mennesker.	Selv om en del fete mennesker helt sikkert er intelligente, mener jeg vel kanskje egentlig at de generelt ikke er like oppvakte som normalvektige mennesker.	Selvsagt er noen fete mennesker smarte, men generelt tenker jeg at de ikke er like begavet som mennesker med normal vekt.	Of course some fat people are smart, but I generally think that they are not as gifted as people of normal weight.	Selv om eller selvsagt? Although = selv om Of course = selvfølgelig Begavet?	Selv om noen fete mennesker er smarte, så tenker jeg generelt at de ikke er like begavet som mennesker med normal vekt.	

I have a hard time taking fat people too seriously.	Jeg synes det er vanskelig å ta fete mennesker seriøst.	Jeg synes det er vanskelig å ta fete mennesker helt på alvor.	Jeg synes det er vanskelig å ta fete mennesker helt alvorlig.	I think it's difficult to really take fat people seriously.		Jeg synes det er vanskelig å ta fete mennesker helt alvorlig.	
Fat people make me feel somewhat uncomfortable.	Fete mennesker får meg nesten til å føle meg ukomfortabel.	Fete mennesker får meg nesten til å føle ubehag.	Fete mennesker får meg til å føle meg litt ukomfortabel.	Fat people make me feel a bit uncomfortable.		Fete mennesker får meg til å føle meg litt ukomfortabel.	
If I were an employer looking to hire, I might avoid hiring a fat person.	Hvis jeg var arbeidsgiver og skulle ansette folk, ville jeg kanskje unngå å ansette en fet person.	Hvis jeg var arbeidsgiver og skulle ansette noen, er det godt mulig jeg hadde latt være å ansette en fet person.	Hvis jeg var arbeidsgiver og skulle ansette noen, er det godt mulig jeg hadde latt være å ansette en fet person.	If I was an employer and was going to hire someone, there's a good chance that I wouldn't hire a fat person.		Hvis jeg var arbeidsgiver og skulle ansette noen, er det godt mulig jeg hadde latt være å ansette en fet person.	
I feel disgusted with myself when I gain weight.	Jeg føler vemmelse/avsky overfor meg selv når jeg legger på meg.	Jeg føler avsky overfor meg selv når jeg legger på meg.	Jeg føler avsky overfor meg selv når jeg legger på meg.	I feel disgusted with myself when I go to bed.		Jeg føler avsky overfor meg selv når jeg legger på meg.	

One of the worst things that could happen to me would be if I gained 25 pounds.	En av de verste ting som kunne skjedd meg var hvis jeg la på meg 12 kilo. (11,3 kg)	Noe av det verste som kunne skjedd, var at jeg la på meg 10 kg. (Oversetter spurte om det var ok å sette 10 kg).	Noe av det verste som kunne skjedd meg, var at jeg la på meg 12 kg.	One of the worst things that could happen to me would be that I put on 12 kg.	Noe av det verste som kunne skjedd meg, var at jeg la på meg 10 kg.	Noe av det verste som kunne skjedd meg, var at jeg la på meg 12 kg, 10, 12 eller 10-12 kg.?
I worry about becoming fat.	Jeg bekymrer meg for å bli fet.	Jeg er redd for å bli fet.	Jeg er redd for å bli fet.	I'm scared of getting fat.	Jeg bekymrer meg for å bli fet.	Jeg bekymrer meg for å bli fet.
People who weigh too much could lose at least some part of their weight through a little exercise.	Mennesker som veier for mye, kunne i det minste gå ned noe ved å trene litt.	Folk som veier for mye, kan i hvert fall gå ned noe ved å trene.	Mennesker som veier for mye kunne i hvert fall gå noe ned i vekt ved å trene litt.	People who weigh too much could at least lose some weight by exercising a bit.	Mennesker som veier for mye kunne i hvert fall gå noe ned i vekt ved å trene litt.	Mennesker som veier for mye kunne i hvert fall gå noe ned i vekt ved å trene litt.
Some people are fat because they have no willpower.	Noen mennesker er fete fordi de ikke har noen viljestyrke.	En del mennesker er fete fordi de ikke har viljestyrke.	Noen mennesker er fete fordi de ikke har noen viljestyrke.	Some people are fat because they lack willpower.	Noen mennesker er fete fordi de ikke har noen viljestyrke.	Noen mennesker er fete fordi de ikke har noen viljestyrke.
Fat people tend to be fat pretty much through their own fault.	Fete mennesker har ofte selv skyld i at de er fete.	Fete mennesker har ofte selv skyld i at de er sånn.	Fete mennesker har ofte selv skyld i at de er fete.	It's often fat people's own fault that they are fat.	Fete mennesker har ofte selv skyld i at de er fete.	Fete mennesker har ofte selv skyld i at de er fete.

Appendix 12

E-mail invitation to ICU nurses to participate in Study III

Kjære intensivsykepleier,

Dette er en invitasjon til deg som er intensivsykepleier til å delta i **en nettbasert spørreundersøkelse om intensivsykepleieres holdninger til intensivpasienter med fedme.**

Det forskes mye på holdninger til fedme i samfunnet generelt, men intensivsykepleieres holdninger til pasienter med fedme er mindre kjent. Dine svar vil derfor bidra til å gi økt kunnskap om et viktig og relevant tema innen intensivsykepleie og sykepleieforskning.

Undersøkelsen er en del av et doktorgradsprosjekt ved Universitetet i Agder og Nastasja Robstad, PhD kandidaten som gjennomfører prosjektet, er utdannet intensivsykepleier.

Hvordan svare?

Du må regne med å bruke ca 20 minutter til å svare på spørreskjemaet. Det anbefales å sitte på et rolig sted når du tar undersøkelsen for bedre konsentrasjon.

Som intensivsykepleier er jeg klar over at det kan være travelt og vanskelig å få tid til å gjennomføre en slik spørreundersøkelse i arbeidstiden. Det er derfor også mulig å svare på spørreundersøkelsen hjemmefra. Jeg blir veldig glad for om du tar deg tid til dette. Dersom du deltar er du med i trekningen av et gavekort til en verdi av kr. 500 på din intensivavdeling.

Lenke til undersøkelse finnes under: (Hold inne Ctrl tasten på tastaturet og klikk deretter med musen for å åpne).

https://unipark.de/uc/sykepleie_2017

Konfidensialitet

Prosjektet er meldt til NSD - Norsk senter for forskningsdata. Det er frivillig å delta i spørreundersøkelsen. Intensivavdelingen sender ut invitasjon til deltakelse og en lenke til studien. Selve studien gjennomføres anonymt av en ekstern forskningstjenesteleverandør i oppdrag av universitetet. Alt i alt betyr det at dine svar vil være helt anonymt, og ingen kan tilbakespore dem til deg. Resultatene fra undersøkelsen skal inngå i en artikkel som skal publiseres i et vitenskapelig tidsskrift. Deltakelse i studien vil ikke medføre vesentlig ulempe utover avsetting av tid til å besvare spørreskjemaet.

For spørsmål om undersøkelsen, kan du ta kontakt med PhD stipendiat og intensivsykepleier Nastasja Robstad, nastasja.robstad@uia.no, tlf. 38142257 eller Professor Liv Fegran, liv.fegran@uia.no, Universitetet i Agder.

Med vennlig hilsen,

PhD stipendiat og intensivsykepleier

Nastasja Robstad

Appendix 13

E-mail invitation to ICU nurses to participate in Study III (Facebook)

Hei kjære kollegaer! Jeg er intensivsykepleier, og forsker på intensivsykepleie som del av min doktorgrad ved Universitet i Agder. Det forskes etter min mening alt for lite på fagfeltet vårt, og nå trenger jeg deres hjelp!

Forskningen min handler om våre holdninger til intensivpasienter med fedme, og jeg leter etter utdannede intensivsykepleiere som jobber på intensivavdelinger ved norske sykehus til denne spørreundersøkelsen.

Jeg setter stor pris på din deltakelse, og ikke minst at du deler videre til/tagger de du kjenner som passer til kriteriene (utdannet intensivsykepleier, ansatt på intensivavdeling på sykehus). Takk for all hjelp!

Spørreundersøkelsen kan ikke tas på mobil. Det tar omtrent 20 minutter å fylle ut, og du kan når som helst bryte og begynne forfra igjen. Ditt bidrag er viktig, og når du fullfører skjemaet vil du bidra til utvikling i et fag vi er sammen er stolte av. Her er linken til undersøkelsen:

<https://unipark.de/uc/sykepleie2017>

Appendix 14

Revised vignettes for Study III

Reviderte vignetter Studie III

Vignett 1

Tenk deg følgende scenario:

Du har ansvaret for pasienten på stue 310. Åse, 47 år, 135 kg og sekretær er innlagt på grunn av smerteproblematikk i forbindelse med en ryggoperasjon. Hun trenger hyppig mobilisering, men nå har det gått lang tid siden siste mobilisering. Du blir bedt om å hjelpe med et teknisk problem på avdelingen. Forestill deg at du kan velge fritt. Hvor sannsynlig er det at du ville gjort følgende:

(a) Mobilisere Åse, hjelpe til med et teknisk problem på avdelingen etterpå.

Lite sannsynlig o o o o Meget sannsynlig

(b) Hjelpe til med et teknisk problem på avdelingen, mobilisere Åse etterpå.

Lite sannsynlig o o o o Meget sannsynlig

Vignett 2

Tenk deg følgende scenario:

Det er travelt på avdelingen og du har ansvar for Ole på stue 17. Han er 30 år, arbeider som it-konsulent, veier 180 kg, er gift og har en sønn. Han er innlagt på grunn av en alvorlig pneumoni med respirasjonsvansker og får intermitterende non-invasiv ventilasjon. Ole skulle ha vært snudd for over 2 timer siden, og du har ikke rukket å spise lunsj. Forestill deg at du kan velge fritt. Hvor sannsynlig er det at du ville gjort følgende:

(a) Gå til lunsj, snu Ole etterpå.

Lite sannsynlig o o o o Meget sannsynlig

(b) Snu Ole, gå til lunsj etterpå.

Lite sannsynlig o o o o Meget sannsynlig

Vignett 3

Tenk deg følgende scenario:

Det er fredag kveld, og du har ansvaret for Per som har fått en sepsis etter et stygt hundebitt i venstre arm. Han er 52 år, enslig, veier 155 kg, og er ikke i arbeid. Per burde bli flyttet over i en ny seng med bedre madrass for å unngå trykksår, men det krever en del organisering for å få dette til. Forestill deg at du kan velge fritt. Hvor sannsynlig er det at du ville gjort følgende:

(a) La andre sykepleiere flytte Per over i ny seng på en annen vakt.

Lite sannsynlig o o o o Meget sannsynlig

(b) Flytte Per over i ny seng på denne vakten.

Lite sannsynlig o o o o Meget sannsynlig

Vignett 4

Tenk deg følgende scenario:

Du kommer på jobb og skal ha ansvar for Irene på stue 11. Hun er innlagt med respirasjonssvikt og ligger på respirator. Hun er 58 år, har mann og 4 voksne barn, veier 142 kg og er tidligere renholdsarbeider. På stue 12 ligger Kari, 88 år, veier 59 kilo og er innlagt etter et fall på sykehjemmet der hun har pådratt seg en bekkenfraktur. Forestill deg at du kan velge fritt. Hvor sannsynlig er det at du ville gjort følgende:

(a) Bytte, så du får ansvaret for Kari istedenfor Irene.

Lite sannsynlig o o o o Meget sannsynlig

(b) Ta ansvar for Irene som planlagt, la andre ha ansvaret for Kari.

Lite sannsynlig o o o o Meget sannsynlig

Appendix 15

Regional Committees for Medical and Health Research Ethics

From: post@helseforskning.etikkom.no <post@helseforskning.etikkom.no>
Sent: Thursday, September 3, 2015 2:13:38 PM
To: Anja Nastasja Robstad
Cc:
Subject: Sv: REK sør-øst 2015/1656 Intensivsykepleieres holdninger til intensivpasienter som lider av fedme

Hei

Vi viser til skjema for framleggingsvurdering, mottatt 27.08.2015 , vår referanse 2015/1656.

Henvendelsen er vurdert av komiteens leder, Finn Wisløff.

Helseforskningsloven gjelder for medisinsk og helsefaglig forskning på mennesker, humant biologisk materiale eller helseopplysninger, jf § 2. Medisinsk og helsefaglig forskning defineres som virksomhet som utføres med vitenskapelig metodikk for å skaffe til veie ny kunnskap om helse og sykdom, jf §4 bokstav a.

Målet med prosjektet er å undersøke holdninger intensivsykepleiere har, samt deres erfaringer i forhold til pleie og behandling av denne pasientgruppen. Basert på opplysningene som gis, er ikke formålet med prosjektet å fremskaffe ny kunnskap om helse, sykdom, diagnostikk eller behandling. Prosjektet faller utenfor helseforskningslovens virkeområde, og kan derfor gjennomføres uten godkjenning av REK.

Det er institusjonens ansvar på å sørge for at prosjektet gjennomføres på en forsvarlig måte med hensyn til for eksempel regler for taushetsplikt og personvern samt innhenting av stedlige godkjenninger.

Jeg gjør oppmerksom på at konklusjonen er å anse som veiledende jfr. forvaltningsloven § 11.

Dersom dere likevel ønsker å søke REK vil søknaden bli behandlet i komitémøte, og det vil bli fattet et enkeltvedtak etter forvaltningsloven.

Med vennlig hilsen

Gjøril Bergva

Komitéssekretær
REK sør-øst D
Tlf: 22 84 55 29

Appendix 16

Approval of the PhD project from the Norwegian Centre for Research Data (NSD)

Natasja Robstad
Institutt for helse- og sykepleievitenskap Universitetet i Agder
Postboks 422
4604 KRISTIANSAND S

Vår dato: 06.01.2016

Vår ref: 45605 / 3 / HIT

Deres dato:

Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 11.11.2015. All nødvendig informasjon om prosjektet forelå i sin helhet 05.01.2016. Meldingen gjelder prosjektet:

45605 *Intensivsykepleiers holdninger til intensivpasienter med fedme*
Behandlingsansvarlig Universitetet i Agder, ved institusjonens øverste leder
Daglig ansvarlig Natasja Robstad

Personvernombudet har vurdert prosjektet og finner at behandlingen av personopplysninger er meldepliktig i henhold til personopplysningsloven § 31. Behandlingen tilfredsstiller kravene i personopplysningsloven.

Personvernombudets vurdering forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, <http://www.nsd.uib.no/personvern/meldeplikt/skjema.html>. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, <http://pvo.nsd.no/prosjekt>.

Personvernombudet vil ved prosjektets avslutning, 01.12.2019, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Katrine Utaaker Segadal

Hildur Thorarensen

Kontaktperson: Hildur Thorarensen tlf: 55 58 26 54

Vedlegg: Prosjektvurdering

Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.

Avdelingskontorer / District Offices:

OSLO: NSD, Universitetet i Oslo, Postboks 1055 Blindern, 0316 Oslo. Tel: +47-22 85 52 11. nsd@uio.no

TRONDHEIM: NSD, Norges teknisk-naturvitenskapelige universitet, 7491 Trondheim. Tel: +47-73 59 19 07. kyrre.svarva@svt.ntnu.no

TROMSØ: NSD, SVF, Universitetet i Tromsø, 9037 Tromsø. Tel: +47-77 64 43 36. nsdmaa@sv.uit.no



Utvalget informeres skriftlig og muntlig om prosjektet og samtykker til deltakelse. Informasjonsskriv og samtykkeerklæring er noe mangelfullt utformet. Vi ber derfor om at følgende endres/tilføyes:

- setningen "Studien er godkjent av Norsk Samfunnsvitenskapelig Datatjeneste" endres til "Studien er meldt til Norsk Samfunnsvitenskapelig Datatjeneste"
- dato for prosjektslutt rettes til 01.12.2019, jf. meldeskjema

Jf. epost fra prosjektleder er det kun helsepersonell som skal inngå i utvalget, ikke pasienter.

Personvernombudet legger til grunn at forsker etterfølger Universitetet i Agder sine interne rutiner for datasikkerhet. Dersom personopplysninger skal lagres på pc/ mobile enheter, bør opplysningene krypteres tilstrekkelig.

SurveyXact er databehandler for prosjektet. Universitetet i Agder skal inngå skriftlig avtale med SurveyXact om hvordan personopplysninger skal behandles, jf. personopplysningsloven § 15. For råd om hva databehandleravtalen bør inneholde, se Datatilsynets veileder: <http://www.datatilsynet.no/Sikkerhet-internkontroll/Databehandleravtale/>.

Forventet prosjektslutt er 01.12.2019. Ifølge prosjektmeldingen skal innsamlede opplysninger da anonymiseres. Anonymisering innebærer å bearbeide datamaterialet slik at ingen enkeltpersoner kan gjenkjennes. Det gjøres ved å:

- slette direkte personopplysninger (som navn/koblingsnøkkel)
- slette/omskrive indirekte personopplysninger (identifiserende sammenstilling av bakgrunnsopplysninger som f.eks. bosted/arbeidssted, alder og kjønn)
- slette digitale lydopptak

Vi gjør oppmerksom på at også databehandler (SurveyXact) må slette personopplysninger tilknyttet prosjektet i sine systemer. Dette inkluderer eventuelle logger og koblinger mellom IP-/epostadresser og besvarelser.

Appendix 17

Approval of changes of the PhD project from the Norwegian Centre for Research Data
(NSD)

From: Hildur Thorarensen <hildur.thorarensen@nsd.no>
Sent: Monday, February 27, 2017 4:40:08 PM
To: Anja Nastasja Robstad
Cc:
Subject: Prosjektnr: 45605. Intensivsykepleiers holdninger til intensivpasienter med fedme

BEKREFTELSE PÅ ENDRING

Hei, viser til endringsskjema registrert hos personvernombudet 21.2.2017.

Vi har nå registrert at det tilføyes et spørreskjema i prosjektet (AFA). I tillegg gjøres det mindre endringer i antall deltakere.

Personvernombudet forutsetter at prosjektopplegget for øvrig gjennomføres i tråd med det som tidligere er innmeldt, og personvernombudets tilbakemeldinger. Vi vil ta ny kontakt ved prosjektslutt.

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Med vennlig hilsen

Hildur Thorarensen
Seniorrådgiver | Senior Adviser
Seksjon for personverntjenester | Data Protection Services
T: (+47) 55 58 26 54

NSD – Norsk senter for forskningsdata AS | NSD – Norwegian Centre for Research Data
[Harald Hårfagres gate 29, NO-5007 Bergen](#)
T: (+47) 55 58 21 17
postmottak@nsd.no www.nsd.no

Appendix 18

Approval Study I

Forenklet meldeskjema for student/mastergradsprosjekter

For at forenklet melding skal kunne benyttes må samtlige utsagn i pkt.6 være oppfylt. Dersom ett av utsagnene ikke stemmer overens med prosjektets formål og gjennomføring, så må ordinært meldeskjema benyttes. Vi gjør oppmerksom på at avdelingssjef må vurdere bruk av deltageres arbeidstid (hvis aktuelt)

Utfylt skjema sendes til personvern@ahus.no sammen med informasjonsskriv og prosjektbeskrivelse.

Når personvernombudet har tilrådd prosjektet kan prosjektet starte.

1 INFORMASJON OM ANSVARLIG FOR PROSJEKTET	
Navn (STUDENT): PhD kandidat Nastasja Robstad	Tlf og E-postadresse (STUDENT): nastasja.robstad@uia.no tlf. 38142257
Navn og stilling (VEILEDER) Hovedveileder Liv Fegran Førsteamanuensis	Ansvarlig virksomhet: Universitetet i Agder, Kristiansand
2 Prosjektet er godkjent av avdelingssjef ved (obligatorisk)	
<input checked="" type="checkbox"/> Ja	Avdeling hvor prosjektet gjennomføres: Intensiv avdeling
Navn, stilling: Vegard Dahl	Divisjon eller klinikk: Avdelingsleder Anestesiavdelingen
3 PROSJEKTETS NAVN/TITTEL	
Phd prosjekt med tittel: «Intensivsykepleieres holdninger til intensivpasienter med fedme». Tittel til delprosjekt som ønskes utført ved Ahus: «Intensivsykepleieres erfaringer med pleie og behandling av intensivpasienter med fedme».	
4 PROSJEKTETS FORMÅL	
Gjennom individuelle intervju av intensivsykepleiere få kunnskap om deres erfaringer i forhold til pleie og behandling av intensivpasienter med fedme.	
5 PROSJEKTETS VARIGHET	
01.01.16-31.12.19	
6 ERKLÆRING OM PROSJEKTET	
Avsender erklærer at følgende 8 utsagn er korrekte (sett kryss):	
<input checked="" type="checkbox"/> En høgskole / et universitet i Norge er databehandlingsansvarlig for prosjektet <input checked="" type="checkbox"/> Prosjektet er ikke søknadspliktig til REK. Veileder har vurdert spørsmålet. <input checked="" type="checkbox"/> Prosjektet meldes til NSD <input checked="" type="checkbox"/> Deltagerne samtykker skriftlig <input checked="" type="checkbox"/> Samtykket vil utformes i tråd med vilkårene i NSDs tilrådning <input checked="" type="checkbox"/> Deltagerne er kun ansatte ved sykehuset <input checked="" type="checkbox"/> Det registreres ingen informasjon om deltageres helse <input checked="" type="checkbox"/> Det registreres ingen informasjon om andre personers helse	
7 LAGRING AV DATA	
Skal elektroniske data som samles inn lagres ved sykehuset? <input type="checkbox"/> Ja <input checked="" type="checkbox"/> Nei	
Hvis ja, hvordan skal dette lagres?	
8 DATO FOR UTFYLLING	
Sted og dato 26.01.16	Utfyllt av: Nastasja Robstad <i>Nastasja Robstad</i>
9 Anbefaling (fylles ut av personvernombudet)	
Sted og dato <i>19/12 - 2016</i>	Sign: (Saksbehandler) <i>Landi Kristoffersen</i>

Appendix 19

Approval Study I

Notat

Til:

Brit Sætre Hansen

Fra:

Forsknings sjef Inger Økland

Kopimottakere:

Divisjonsdirektør Hans Tore Frydnes, Juridisk rådgiver Ina Trane

Dato: 02.02.2016

Arkivref: 2011/1131 - 11543/2016

Godkjennelse forskningsprosjekt - ID556

Forskningsprosjektet: «Intensivsykepleieres erfaringer med pleie og omsorg av intensivpasienter med fedme»

Det vises til søknad vedrørende oppstart av ovennevnte forskningsprosjekt. Prosjektet har vært vurdert av forskningsansvarlig og prosjektet er registrert i vår database med referanse: ID556. Vi ber om at denne referansen oppgis ved alle henvendelser.

Nødvendige tillatelser foreligger. Basert på disse og forskningsprotokoll godkjennes oppstart av prosjektet.

Forskningsavdelingen ønsker å minne om at:

- Ved endringer i protokollen ber vi om å få en endringsmelding.
- Dersom innhenting av pasientopplysninger baserer seg på samtykke, må samtykkeskjemaene oppbevares i låsbart skap.
- Data skal slettes eller anonymiseres ved prosjektslutt og sluttmelding sendes Forskningsavdelingen.
- Dersom prosjektet ikke starter og/eller blir avbrutt må melding sendes til Forskningsavdelingen.

Forskningsavdelingen ønsker lykke til med gjennomføring av prosjektet.

Appendix 20

Approval of changes of the PhD project from the Norwegian Centre for Research Data
(NSD)

From: Hildur Thorarensen <Hildur.Thorarensen@nsd.no>
Sent: Wednesday, November 29, 2017 4:27:08 PM
To: Anja Nastasja Robstad
Cc:
Subject: Prosjektnr: 45605. Intensivsykepleiers holdninger til intensivpasienter med fedme

BEKREFTELSE PÅ ENDRING

Hei, viser til endringsmelding registrert hos personvernombudet 16.11.2017.

Vi har nå registrert at fremgangsmåte for rekruttering endres, og at Questback brukes som databehandler.

Personvernombudet forutsetter at prosjektopplegget for øvrig gjennomføres i tråd med det som tidligere er innmeldt, og personvernombudets tilbakemeldinger. Vi vil ta ny kontakt ved prosjektslutt.

--

Med vennlig hilsen

Hildur Thorarensen
Seniorrådgiver | Senior Adviser
Seksjon for personverntjenester | Data Protection Services
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