Self-Compassion and Perfectionism

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Abstract

Suffering, failure and imperfection are inevitable parts of human nature that all individuals will experience during their lifetime. However, how individuals relate to themselves when they are struggling may play an important role on their psychological wellbeing. Whilst self-compassion is defined as treating oneself with kindness in moments of suffering or perceived failure, perfectionism consists of high standards, fear of evaluation and exaggerated self-criticism when these expectations are not met.

Perfectionism as recently gained increasing attention because levels of perfectionism in society are increasing, parallel to mental health problems and increased demand on mental health facilities. In addition, a growing body of evidence indicates that perfectionism may play an important role in the development of mental illness: it is reportedly a barrier to treatment and has recently been termed an important transdiagnostic phenomenon in mental illness due to its correlation to depression, anxiety, obsessive compulsive disorder and eating disorders. Self-compassion, on the other hand, is associated with lower levels of depression, anxiety and rumination. In addition, self-compassion intervention studies indicate that self-compassion can increase through training and that this has positive effects on psychological wellbeing.

Little research to date has investigated if perfectionism can be reduced with similar targeted interventions and a number of important questions regarding the phenomenon remain unanswered. It is unclear how perfectionism develops and if it is entirely maladaptive, as a subfactor called strivings (high standards) correlates inconsistently to wellbeing/symptoms of distress. The purpose of this thesis was thus to examine perfectionism through both qualitative and quantitative methods in order to increase our understanding of how perfectionism relates to mental health, how individuals experience the phenomenon and whether perfectionism can be reduced.

Paper 1 investigated the psychometric properties of a brief perfectionism scale in a Norwegian student sample (N=383), in order to examine how to measure perfectionism, whether perfectionism has multiple subfactors and how these uniquely relate to symptoms of mental health. Due to previous inconsistent findings in the literature, two different statistical methods were employed: pure bifactor modeling and confirmatory factor analysis. Findings from this study indicate that the Frost Multidimensional Scale-Brief is best represented by a two-factor model, and that these factors are evaluative concerns and strivings. Whilst evaluative concerns had a significant correlation to both anxiety and depression, strivings only had a weaker yet significant correlation to anxiety.

Paper 2 employed in-depth lifestory interviews of nine individuals with high perfectionistic tendencies in order to examine how they described that painful life events shaped their relationship to others. Thematic analysis of similarities and differences in the participants' lived experiences resulted in two overarching themes: «You can't always trust people,» and «A distancing from others.» These themes highlighted the importance of personal responsibility and independence as well as emotional and physical distancing in order to protect oneself from getting hurt again after dramatic life events. These findings provided important nuance and depth to both the function and difficulty in perfectionistic strategies.

Paper 3 investigated whether students' levels of maladaptive perfectionism, anxiety, depression and problems with body image can be reduced through a targeted self-compassion course. We employed a randomized controlled trial (N=89) in order to investigate the effects of a brief 3-week self-compassion intervention on students' mental health. Findings indicated that training in self-compassion increases self-compassion and reduces symptoms of anxiety, depression and maladaptive perfectionism subfactor. Whilst results for improving body image and decreasing strivings were inconsistent.

Together, the findings of the doctoral project indicate that the FMPS-B can be used to measure the two factors of perfectionism: strivings and evaluative concerns

separately, that these correlate differently to mental health, and that brief interventions in self-compassion can significantly reduce maladaptive perfectionism and symptoms of anxiety and depression. In addition, individuals with perfectionistic tendencies nuance these findings and shed light on the function perfectionism may serve after experiencing difficult life events.

Sammendrag

Lidelse, det å feile og det å være uperfekt er uunngåelige deler av det å være et menneske og noe alle vil oppleve som en del av livet sitt. Men hvordan man behandler og forholder seg til seg selv når man har det vanskelig kan spille en viktig rolle i psykologisk velvære. Mens selvmedfølelse defineres som å behandle seg selv med vennlighet i øyeblikk med lidelse eller når man feiler, består perfeksjonisme av det å ha høye standarder, frykt for å bli evaluert og overdrevet selv-kritikk når slike forventninger ikke innfris.

Perfeksjonisme har nylig fått økt oppmerksomhet på grunn av at flere blir perfeksjonistiske, samtidig som psykiske problemer og trykket på helsevesenet øker. I tillegg ser man økende evidens for at perfeksjonisme spiller en viktig rolle i utviklingen av psykiske plager: perfeksjonisme betegnes som en barriere i behandling, og har nylig blitt betegnet som et transdiagnostisk fenomen på grunn av at det korrelerer med depresjon, angst, OCD og spiseforstyrrelser. Selvmedfølelse derimot, er assosiert med lavere nivåer av depresjon, angst og ruminering. I tillegg viser intervensjonsstudier at selvmedfølelse kan trenes opp og at dette kan ha en positiv effekt på ens psykiske helse.

Per i dag finnes det lite forskning som har undersøkt om perfeksjonisme kan reduseres gjennom intervensjoner som fremmer selvmedfølelse, og flere sentrale spørsmål om fenomenet forblir ubesvart. Det er uklart hvordan perfeksjonisme utvikler seg hos mennesker og om det er utelukkende maladaptivt. Grunnen til dette er at en subfaktor av perfeksjonisme, «høye standarder» (strivings), bare i varierende grad synes å ha sammenheng med psykiske lidelser. Formålet ved denne avhandlingen var å studere perfeksjonisme ved bruk av både kvalitative og kvantitative metoder for å bedre forstå sammenhengen mellom perfeksjonisme og psykisk helse, hvordan individer opplever fenomenet og om maladaptiv perfeksjonisme kan reduseres.

Studie 1 undersøkte de psykometriske egenskapene ved en kort perfeksjonismeskala i en norsk studentpopulasjon (N=383) for å finne ut hvordan man skal måle

perfeksjonisme, om perfeksjonisme består av flere faktorer og hvordan de ulike delene henger sammen med psykisk helse. På grunn av tvetydige funn i tidligere forskning brukte vi to ulike statistiske metoder: «pure bifactor modeling» og «confirmatory factor analysis». Funnene fra denne studien viser at Frost Multidimensional Perfectionism Scale- Brief (FMPS-B) er best representert av en to-faktor modell som består av «evalueringsbekymring» (evaluative concerns) og «høye standarder» (strivings). Mens «evalueringsbekymring» hadde en signifikant korrelasjon til både angst og depresjon, hadde «høye standarder» kun en svakere, men signifikant korrelasjon med angst.

Studie 2 brukte dybdeintervjuer med ni mennesker som skåret høyt på perfeksjonisme for å undersøke hvordan de selv beskrev at vonde hendelser i livet påvirket dem i relasjon til andre. Gjennom tematisk analyse av likheter og forskjeller i deltakernes opplevelser kom studien frem til to hovedtemaer: «Du kan ikke alltid stole på mennesker,» og «En distansering fra andre». Temaene understreker viktigheten av personlig ansvar og uavhengighet, samt følelsesmessig og fysisk distansering for å beskytte seg selv fra å bli såret igjen etter deltakere hadde opplevd dramatiske livshendelser. Funnene bidrar til å nyansere og utfylle vår forståelse for hvilken funksjon perfeksjonistiske strategier har, og hvilke utfordringer de gir.

Studie 3 undersøkte om et selvmedfølelseskurs kunne bidra til å redusere maladaptiv perfeksjonisme, angst, depresjon og forbedre kroppsbilde hos studenter. Vi brukte en randomisert kontrollert studie (N=89) for å måle effekten av en kort 3-ukers intervensjon for økt selvmedfølelse på studenters psykiske helse. Funnene indikerer at selvmedfølelsestrening øker selvmedfølelse og reduserer angst, depresjon og maladaptiv perfeksjonisme. Funnene for endring i kroppsbilde og «strivings» var tvetydige.

Funnene fra dette doktorgradsprosjektet indikerer at FMPS-B kan brukes til å måle perfeksjonisme som todelt: «høye standarder» og «evalueringsbekymring», at disse subfaktorene henger sammen med psykisk helse på ulike måter, og at en kort intervensjon i selvmedfølelse kan redusere maladaptiv perfeksjonisme, samt angst og

depresjon. I tillegg utdyper og nyanserer livshistorieintervjuene med personer med perfeksjonistiske tendenser i de kvantitative funnene, ved å utforske funksjonene perfeksjonisme kan ha etter man opplever vanskelige livshendelser.

List of Publications

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Contents

1. Introduction

1.1 Background

The current study focuses on different aspects of perfectionism and self-compassion and how these constructs affect students' mental health. The background for this study is students' worsening mental health and the implication of this on the demand on mental health services (Curran & Hill, 2019; Lipson, Lattie & Eisenberg, 2019). Although there are several widely accepted definitions of perfectionism, in this project we utilized Frost, Marten, Lahart & Rosenblate's (1990): a multidimensional personality trait, which consists of having high standards, excessive self-criticism, fears and doubts about one's actions, and concern of other's evaluation. Self-compassion is defined as one's ability to treat oneself with kindness instead of criticism and judgment when experiencing failure and pain. Self-compassion consists of three main components: self-kindness as opposed to self-judgment, mindfulness as opposed to over-identification, and common humanity as opposed to isolation (Neff, 2003).

In Norway, the current generation of students is colloquially referred to as the generation of performance anxiety (Madsen, 2018). However, the rise in perfectionistic tendencies is not unique to Norway. Curran and Hill (2019) report a 30-year trend of increases in self-oriented, other oriented, and socially prescribed perfectionism, with the most notable increase in the latter which constitutes perceived societal pressure to be perfect (Hewitt & Flett, 1990). Research suggests that perfectionism may be an important transdiagnostic process in mental illness because it is linked to a myriad of mental health conditions, such as anxiety, depression, and eating disorders (Egan, Wade & Shafran, 2011).

Several longitudinal studies also report a rise in serious mental health conditions among students. Oswalt and colleagues (2018) collected data on 454,029 students in the United States and found that self-reported diagnoses of anxiety, ADHD, depression, insomnia, OCD, and panic attacks increased significantly between 2009-

2015. Another large longitudinal study with 610,543 students found that rates of severe depression, nonsuicidal self-injury, suicide plans, and suicide attempts more than doubled from 2007 to 2018 (Duffy, Twenge & Joiner, 2019). Similar trends are also evident in Norway. The previous national survey reported that 29% of students had struggled with serious mental health problems which represents an 81% increase from eight years prior (Knapstad, Heradstveit & Sivertsen, 2018). These self-reported symptoms were measured by the Hopkins Symptoms Checklist (HSCL 25) which asks to what degree symptoms have affected an individual in the past two weeks. Although this study was conducted prior to the advent of Covid-19 pandemic and therefore does not address the mental health effects of it, it is relevant to note that the number of students who report struggling with serious mental health problems since the onset of the pandemic has increased an additional 45% in the 2021 study of students' mental health in Norway (Sivertsen, 2021). The rise in mental health problems among students are also reflected in increased pressures on and utilization of mental health services (Lipson et al., 2019). Rates of mental health service use on U.S. campuses increased from 19% to 34% between 2007 to 2017 (Lipson et al., 2019).

It is suggested that trends in perfectionism may be a reflection of more individualistic and meritocratic values in society (Curran & Hill, 2019). Similarly, Gilbert, McEwan, Matos and colleagues (2011) discuss that societies are becoming increasingly competitive. These trends are important to note because increases competition activates the individual's "threat system," a mindset of seeking protection from dangers, and has implications for key therapeutic change mechanisms: individuals' openness for affiliative interactions and ability to receive kindness, compassion, and reassurance (Gilbert et al., 2011).

These theories are also reflected in studies which indicate that perfectionism plays an important role in several key aspects of mental health treatment. Studies have shown that individuals with maladaptive perfectionistic tendencies are less likely to seek help, perceive less social support, more hostility and rejection, and are less likely to

experience satisfying relationships (Shannon, et al. 2018; Habke & Flynn, 2002). High perfectionistic tendencies prior to treatment predict poorer therapeutic outcome, which is mediated by a failure to develop a strong therapeutic alliance (Zuroff et al., 2000; Blatt & Zuroff 2002).

In addition, perfectionism is inversely correlated with self-compassion (Neff, 2002). This has important implications on the treatment of mental health problems because the ability to experience compassion and have affiliative interactions are important factors both in therapy and in emotion regulation systems and internal affect regulation (Gilbert et al., 2011). Self-compassion has been linked to positive mental health, motivation, interpersonal relationships, and as important for resilience during stressful events (Marsh, Chan, & MacBeth, 2017; Neff & Beretvas, 2013; Bluth & Neff, 2018). Studies on the effects of self-compassion indicate that self-compassion can increase with targeted interventions. A meta-analysis of self-compassion intervention articles indicates that interventions which increase self-compassion also significantly increase healthy eating behavior and reduce rumination, stress, depression, self-criticism, and anxiety (Ferrari et al., 2019).

In sum, longitudinal studies indicate that perfectionistic tendencies are on the rise, and that perfectionism has important implications on therapy. Perfectionism affects whether individuals seek help, the therapeutic alliance, treatment outcome, and the development and maintenance of mental health problems (Curran & Hill, 2019; Zuroff et al., 2000; Blatt & Zuroff 2002; Shannon et al., 2018; Egan, Wade & Shafran, 2011). On the other hand, increases in self-compassion have been shown to improve students' mental health. One study found that coursing students in self-compassion significantly reduced symptoms of depression and anxiety after only two weeks (Dundas et al., 2017). More studies are needed to better understand the role of perfectionism and investigate if perfectionism and mental health problems such as anxiety and depression can be improved with a brief, cost-effective, and easily accessible self-compassion interventions for university students.

1.2 Purpose and scope of dissertation

The overarching research questions of this doctoral thesis are, “How do adults with perfectionistic tendencies describe painful experiences shaped their relationship to others? Can a brief course in self-compassion improve students’ perfectionistic tendencies and mental health?” The doctoral project consists of three sub-questions which form the basis of three research studies. In order to study the construct of perfectionism we translated and validated the Frost Multidimensional Perfectionism Scale-Brief and assessed whether the scale is unidimensional or could be used to study what is often described as maladaptive and adaptive perfectionism separately. We then interviewed nine students who scored in the top 5% of perfectionistic tendencies, and for contrast six students who scored lowest, about their life story in order to explore the question “How do highly perfectionistic individuals give meaning to the ways painful experiences shaped their relationships to others?” The 2-6 hour long semi-structured interview developed by Dan McAdams seeks to identify common themes, such as themes of communion and agency in the life narrative told by participants (McAdams, 2001; McAdams, Reynolds, et al., 2001). This research question highlights perfectionistic individuals’ own understanding and experiences of how painful events had formed them to deepen our understanding of the phenomenon of perfectionism through firsthand experiences. The third doctoral study consisted of randomized wait-list controlled study which studied the effects of a brief self-compassion intervention for students on mental health, perfectionism, and body image. The primary hypothesis was that a self-compassion course can decrease maladaptive perfectionistic tendencies amongst students by increasing self-compassion. Longitudinal studies on perfectionism are generally lacking in the field, and perfectionism is assumed to be a trait which may vary across contexts (sports, school, home, etc.) but is otherwise relatively consistent across a lifespan (Stoeber, 2018). Nevertheless, correlative studies show that self-compassion and perfectionism

are linked, and more self-compassionate individuals are less likely to be perfectionistic (Neff, 2003).

Although the three studies vary widely in methodology used and questions posed, the three questions shed light on three different aspects of perfectionism: is the FMPS-B a reliable and valid measure of the adaptive and maladaptive components of perfectionism in a Norwegian sample, what are individuals with perfectionistic tendencies' experience and understanding of how painful events have affected how they relate to others, and finally can individuals become less perfectionistic, anxious and depressed, and have improved body image over time through a brief self-compassion intervention? The overarching theme is thus to better understand how students treat themselves and relate to others when faced with challenges by researching different aspects of perfectionism and self-compassion. The strength of employing different methods is that it allows for triangulation in research which can improve the validity of and nuance findings. However, despite the strengths of mixed methods design, the use of a variety of methods can also pose challenges, as discussed below.

Quantitative and qualitative research aim to answer different types of questions, use different methods, lean on different theoretical frameworks, prioritize different types of findings, and often position themselves in different aspects of the research field. Additionally, self-compassion and perfectionism are two constructs which have rarely overlapped in research. This is both what makes this research study important, and simultaneously poses challenges in focusing this thesis' synopsis. This synopsis will therefore identify, summarize, and organize different types of findings and research fields relevant to this project. To present a cohesive background for this study, this review will first provide an overview of how we have come to understand perfectionism, how it relates to other mental health measures and interpersonal challenges, current theoretical developmental models of perfectionism, and perfectionism in therapy. Then the synopsis will introduce the construct self-compassion and how it relates to perfectionism and mental health.

1.3 Perfectionism

The concept "perfectionism" has been around for a long time both as a layman term and in the literature. As early as 1950, Horney (1950) referred to a "tyranny of shoulds" and Albert Ellis (1962) described that there are those who hold the irrational belief "that there is invariably a right, precise and perfect solution to problems and that it is catastrophic if this perfect solution is not found" (pp. 86-87). In 1965, Hollender defined perfectionism as "the practice of demanding of oneself or others a higher quality of performance than is required by the situations". These definitions and use of terms such as "tyranny" and "catastrophic" highlight the authors' early understanding of the rigidity of perfectionistic tendencies and the negative impact these can have on an individual.

Whilst the earliest definitions conceptualized perfectionism more pathologically, later definitions began differentiating between positive and negative aspects of perfectionism. Hamacheck (1978) differentiated between what he called "normal" as opposed to "neurotic" perfectionism because he found some took pleasure from their effort and could control their need for precision, similarly to Slade's (1982) distinction between "satisfied" and "dissatisfied" perfectionists, adapting to include a more positive understanding of perfectionism. By differentiating and normalizing facets of perfectionistic tendencies, these definitions began to lend more support for a more nuanced understanding of the construct, with room to interpret perfectionism as not only maladaptive but also adaptive properties.

Despite its history, perfectionism did not receive significant attention in the research field until the early 1990s when two identically named "Multidimensional Perfectionism Scales" were developed by Frost and colleagues (1990), closely followed by Hewitt & Flett (1991). Frost and colleagues (1990) defined perfectionism as "setting of excessively high standards for performance accompanied by overly critical self-evaluation" and identified six dimensions in the Frost Multi-Dimensional Perfectionism Scale (FMPS): Concern over mistakes, Doubts about actions, Parental

expectations, Parental criticism, Personal standards, Organization. The subscale Concern over mistakes represents negative reactions to making mistakes such as generalizing mistakes as equivalent to failure, and believing one will lose others' respect. Doubts about actions represents doubting one's competence and actions. Parental expectations represents the experience that one's parents have very high standards and expectations of them. Parental criticism represents the experience that parents are highly critical of one's attempt to meet these expectations. Personal standards represents having excessively high standards for oneself. Organization represents being orderly and organized, but as it did not correlate strongly to the other subscales the authors recommended it not be included going forward. However, it is still worth noting the subscale, as many studies continue to include Organization (Frost et al., 1990).

Hewitt & Flett's (1991) Multidimensional Perfectionism Scale (MPS) identified perfectionism through its directionality with the following three dimensions: Self-oriented perfectionism, Socially prescribed perfectionism, and Other-oriented perfectionism. Whilst Self-oriented perfectionism is the expectation of oneself to be perfect, Other-oriented perfectionism represents holding others to a high standard, and Socially prescribed perfectionism is the experience that the outside world has high expectation of oneself and that acceptance by other people is dependent or conditional on fulfilling these.

Although the MPS and FMPS have different dimensions and emphasize different facets of perfectionism, single factor analysis including both scales identified two factors. The first factor includes Personal standards and Organization from the FMPS, and Self-oriented perfectionism and Other-oriented perfectionism from the MPS. The second factor is made up of Concern over mistakes, Doubts about actions, Parental expectations, and Parental criticism from the FMPS, and Socially prescribed perfectionism from the MPS (Frost et al., 1993). These two factors were defined as "positive achievement strivings" and "maladaptive evaluation concerns" (Frost et al., 1993). Today, perfectionism is widely defined as a multidimensional trait

characterized by having high personal standards, concerns over mistakes, and excessive self-critical evaluations (Frost et al, 1990; Hill & Curran, 2015). Using factor analysis, Stoeber and Otto (2006) combined three different measures: APS(-R), FMPS, and MPS, into two latent dimensions named "perfectionistic strivings" and "perfectionistic concerns" which respectively most often correlate to adaptive and maladaptive mental health outcomes. In their study, "perfectionstic strivings" combines Personal standards and Self-oriented perfectionism; whilst "perfectionistic concerns" combines Concern over mistakes, Doubts about actions, Socially prescribed perfectionism, and Perceived discrepancy between actual achievement and high expectations. In addition, the authors argue that for the core facets of perfectionistic strivings and perfectionistic concerns, one can disregard the dimensions: Organization and Order, Parental expectations and Parental criticism, and Other-oriented perfectionism (Stoeber & Otto, 2006).

In line with Ellis' (1962) definition of perfectionism as being characterized by certain beliefs, it is noteworthy to mention that the study of perfectionism has expanded to include cognitions, in particular individual differences in automatic perfectionistic thoughts (Flett et al., 1998) and perfectionistic self-presentation, which emphasizes the desire to *appear* perfect as opposed to *be* perfect (Perfectionistic Self-Presentation Scale, Hewitt, Blasberg, Blesser, et al., 2011). Studies have also shown that the different subscales of perfectionism are linked to different types of motivation. For example, whilst Self-oriented perfectionism is correlated with intrinsic motivation, Socially prescribed perfectionism is correlated with extrinsic motivation for studying (Stoeber, Feast & Hayward, 2009). Thus, perfectionism is not only a multidimensional trait, but may also be linked to how one thinks, individuals' beliefs and values, how one presents oneself and one's motivation for achievements.

1.3.1 Perfectionism and mental health

Perfectionistic concerns (maladaptive subfactors of the APS(-R), FMPS, and MPS) is often referred to as "unhealthy" perfectionism in the literature, highlighting its association to a multitude of negative mental health outcomes. A clinical review by

Egan and colleagues (2011) highlights that perfectionism, as measured with the FMPS and MPS, is elevated among individuals with anxiety disorders, depression, and eating disorders. The review also provides evidence that perfectionism increases vulnerability for developing and predicts treatment outcome for eating disorders and maintains OCD, social anxiety, and depression. The authors therefore conclude that perfectionism may be a transdiagnostic process in psychopathology. A meta-analysis investigating the relationship between perfectionistic "strivings" and perfectionistic concerns and psychopathology support these findings (Limburg et al., 2016). This investigation of treatment effects across 284 different studies indicates that perfectionism is a transdiagnostic factor and that both dimensions of perfectionism are associated with psychopathology (Limburg, Watson, Hagger, et al., 2016). Several studies have also repeatedly found association between maladaptive perfectionism and depression (Preusser et al., 1994; Rice et al., 1998; Ashby et al., 2006). Ashby and colleagues (2006) further analyzed internalized shame and self-esteem as mediators in this relationship. This study, including 215 students, found that self-esteem mediates the perfectionism-depression relationship. In addition to self-esteem, shame also seemed to play a role in explaining the association between perfectionism and depression for women. Sagar and Stoeber (2009) found that perfectionistic concerns over mistakes and perceived parental pressure, but not personal standards, showed a positive relationship with fear of experiencing shame and embarrassment and negative affect after failure. This means that maladaptive dimensions of perfectionism (in this study: Concerns over mistakes and Parental pressure) are associated to fear of failure, shame, and embarrassment.

In summary, perfectionism appears to be associated with a variety of mental health outcomes such as: anxiety, depression, eating disorders, obsessive compulsive disorder, shame, self-esteem, poor outcome expectancy, fear of failure, and body dissatisfaction. In addition, several studies indicate that perfectionism is often present in co-occurring or comorbid diagnoses (Ayearst et al., 2012; Bieling, et al., 2004; Van Yperen et al., 2011; Wheeler et al., 2011).

However, it is important to note that different conceptualizations and operationalizations of perfectionism across different studies makes interpreting and generalizing findings more complex than simple association between perfectionism and mental health. The most important distinction exists in the difference between studies of perfectionism as consisting of one or more dimensions. When operationalizing perfectionism as consisting of several dimensions, some may be related negatively to measures of mental health while others may be related positively to the same measures of mental health. One such example is the relationship between perfectionism and fear of failure, in which perfectionistic personal standards had a negative relationship to fear of failure whilst perfectionistic concern of mistakes and parental pressure had a positive (Sagar & Stoeber, 2009).

In addition, different studies have included different dimensions and different scales in their conceptualizations of "maladaptive" and "adaptive" perfectionism. It is not always clear which subscales of measures of perfectionism should be considered adaptive or maladaptive. An example is the subscale of "perfectionistic strivings". Whilst evaluative concerns most often is associated with negative mental health outcomes, perfectionistic strivings is argued to more often be associated with positive mental health outcomes (Stoeber & Otto, 2006 for review). However, the degree to which perfectionistic strivings is adaptive is debated. A meta-analysis links perfectionistic strivings to psychopathology as well (Limburg et al., 2016). Because perfectionistic strivings correlates inconsistently with adaptive health outcomes across studies, it has prompted psychometric debate and studies as to how to accurately measure these. For example, whilst Smith, Sherry, Vidovic and colleagues (2015) argue that perfectionistic striving exacerbates the maladaptive effects of perfectionistic concerns, Stoeber and Otto (2006) provide evidence that the adaptive effects of perfectionistic strivings are most evident when first partialling out overlap between perfectionistic strivings and perfectionistic concerns in statistical analyses.

1.3.2 Theoretical models of perfectionism development

Why and how individuals develop perfectionism is still unclear, however several developmental theories of perfectionism agree that perfectionism most likely develops in childhood, and that parents and/or adverse childhood experiences may be important factors (Chen et al., 2019; Stoeber, 2018). Felitti and colleagues (1998) define adverse childhood experiences (ACE) as exposure to abuse, neglect and/or family dysfunction.

Flett, Hewitt, Oliver and McDonald (2002) reviewed the existing theories on the development of perfectionism and named these: social expectations model, social learning model, social reaction model, and the anxious rearing model. Flett and colleagues (2002) describe that the *social expectation model* is based on theory that children who cannot live up to their parents' expectations will experience chronic helplessness and hopelessness and experience a sense of conditional or contingent self-worth. The *social learning model* focuses on modelling as described by Bandura's (1971) social learning theory and suggests children may imitate parents who have perfectionistic tendencies. The *social reaction* model is cautiously proposed by Flett and colleagues (2002) and posits that a child may develop perfectionism as a coping mechanism in response to a harsh environment, such as physical or emotional abuse, neglect, or a chaotic environment. The *anxious rearing model* is proposed as a fourth possible explanatory model and suggests that anxious parenting, such as exaggerated concern for avoiding making mistakes or being judged negatively by others may contribute to perfectionism development in children (Flett et al., 2002).

Stoeber and colleagues (2018) further summarized three hypotheses as to how parents may influence perfectionism development in children: *the parents' perfectionism hypothesis model*, similar to Flett and colleagues' (2002) social learning model is based on children modelling their parents as suggested by Bandura's (1971) social learning theory, *the parental pressure hypothesis*, which combines Flett and colleagues' (2002) social expectations and reactions models, posits that parental expectations and criticism when the child does not meet these may lead to

perfectionism and *the parenting style hypothesis*, based on Baumrind's (1971, 1991) theory of authoritarian parenting style, which suggests that controlling parenting style may be a factor in the development of perfectionistic concerns.

Chen and colleagues (2019) propose that ACE may be an important factor in the development of perfectionism after studying associations between ACE and perfectionism. They found a significant positive correlation between exposure to childhood adversity and Socially prescribed perfectionism (MPS) and Nondisplay of imperfection (PSPS). Experiences of family dysfunction in childhood was positively associated with Nondisplay of imperfection. In addition, experiences of abuse in childhood was a unique predictor of Socially prescribed perfectionism and perfectionistic self-presentation styles. However, due to limitations of study designs in abuse it is difficult to conclude that perfectionism is caused by ACE, nor can one conclude that individuals who experiences ACE will develop perfectionism.

1.3.3 Perfectionism and interpersonal relationships

Studies have found that individuals with perfectionistic tendencies feel less accepted, less sense of belonging, less relationship satisfaction, and experience that others are more rejecting, hostile, and dissatisfied with them (Habke & Flynn, 2002; Hewitt et al., 2006; Stoeber, 2012). Hewitt and colleagues' (2006) perfectionism social disconnection model suggests that individuals with perfectionism experience less social support and have interpersonal problems such as over-sensitivity and hostility. Interpersonal and behavior difficulties in perfectionism may lead to difficulties in connecting with others through two suggested pathways: off-putting interpersonal behaviors and interpersonal sensitivity, such as anticipation of rejection. Disconnection may further amplify these problems through negative affect, self-censure, and alienation. Hewitt and colleagues (2006) explain that this process in interpersonal difficulties has both subjective and objective components, such as a feeling of detachment from other people, but also severed relationships.

Stoeber and colleagues (2017) studied whether the relationship between perfectionism and social disconnection and interpersonal hostility was related to each subfactor of perfectionism as measured by the MPS: Socially prescribed perfectionism (trying to live up to socially prescribed standards), Other-oriented perfectionism (expecting *others* to be perfect), and Self-oriented perfectionism (trying to live up to one's own high standards). Although they found that each facet was related to interpersonal hostility and disconnection, the relationship between Self-oriented perfectionism with distrust, verbal aggression, hostility, and aggressive feelings was no longer significant when partial correlations were regarded, indicating that only socially prescribed and other-oriented perfectionism are related to hostility and social disconnection. In fact, when controlling for other-oriented and socially prescribed perfectionism, self-oriented perfectionism was positively correlated with social connectedness and no more hostility than among non-perfectionists. They argue that this indicates that high standards in perfectionism does not necessarily lead to alienating others. A study on the mediating role of communication styles in maladaptive perfectionism and perceived social support, whilst lending support to the social disconnection model, also found that emotionality in communication style may increase perceived social support in maladaptive perfectionism (Barnett & Johnson, 2016), indicating that talking to others about how one feels may reduce the negative effects of perfectionism on relationships.

Whilst perfectionism has been predominantly studied quantitatively, there are also a few qualitative studies which have also highlighted interpersonal problems among individuals with perfectionistic tendencies and thereby lend further support to findings of the subjective experience of detachment from others. Merrell and colleagues (2008) used essays or writings about the "deepest thoughts and feelings" of individuals with perfectionism. They identified themes of Stress, Relationships, Coping, Expectations, Perfectionism, and Academic/Professional Goals. They found that stress and social factors were often related to personal and/or parental expectations. Specifically, parental expectations contributed to an experience of pressure to succeed. Nevertheless, participants in their study also explained that being

with family and friends reduced stress, despite also experiencing interpersonal problems. In addition, Merrell and colleagues (2008) noted that participants ambivalently described perfectionism as a drive to please others which contributed to challenges but remained worthwhile. Similarly, a study by Slaney and Ashby (1996) reports that individuals with perfectionism may be ambivalent or even unwilling to change perfectionistic tendencies despite experiencing these as distressing. Farmer, Mackinnon and Cowie (2017) identified among others, two relational themes in a qualitative analysis of narratives of individuals with perfectionism. The two relational themes which emerged are described as positivity regarding relationships when exposing vulnerability to others, and experiences of conflicts and negative interactions with others which frequently led to worsened situations and perceptions. Similarly, MacKinnon, Sherry and Pratt (2013) used a mixed methods longitudinal and narrative study of students and found that whilst perfectionism was positively correlated with themes of agency, it was not with themes of communion. However, Farmer and colleagues (2017) further differentiated narratives of those with adaptive compared to maladaptive perfectionism and found marked differences between the two. Particularly when summarizing the main theme of one's life, those with maladaptive perfectionism were more preoccupied with negative life events and strive for self-improvement as opposed to reaching out to others. One main difference between maladaptive as opposed to adaptive perfectionism were that adaptive perfectionists described successful relationships when narrating communion stories, whereas maladaptive perfectionists were more likely to describe loneliness and relationship problems. These findings implicate qualitative differences in the relational experiences of individuals with and without maladaptive perfectionistic tendencies.

1.3.4 Perfectionism in therapy

It is suggested that perfectionism may be both a transdiagnostic process in mental health problems and a core vulnerability factor (Egan et al., 2011; Hewitt et al., 2018). Several challenges have been reported in the treatment of individuals with perfectionism. As early as 1989, Halgin and Leahy described that college students did

not seek treatment for perfectionism. Shannon and colleagues (2018) similarly describe that individuals with perfectionism may be less likely to seek help. Researchers therefore suggest that individuals with perfectionism do not often go to therapy for perfectionism, and when they first seek help, individuals with maladaptive perfectionism are referred to as "resistant to change," which Rice and Mirzadeh (2000) explain may be due to that changing perfectionism would require "a fundamental change in self- and other-perceptions". Rice and colleagues (2003) elaborate that their "findings suggest a rather strong, defensive armor protecting perfectionism that may not easily be pierced through traditional therapeutic efforts." Studies have also described that individuals with perfectionism may be ambivalent or even unwilling to change perfectionistic tendencies, even when they find these distressing (Slaney & Ashby, 1996). Hewitt and colleagues (2018) argue that the major overarching task in the treatment of individuals with perfectionism is increasing self-acceptance and acceptance of the need for help.

Chen and colleagues (2015) found that in perfectionism outcome expectancy, the expectation that perfectionism positively influences performance, was related to greater depression severity and symptoms. In addition, individuals with depression had higher negative and lower positive outcome expectancy than the healthy control group. They suggest that outcome expectancy therefore may partially explain the association between perfectionism and poor treatment outcome in individuals with depression.

In addition, interpersonal challenges, such as less satisfying relationships among individuals with high perfectionistic tendencies before treatment predict worse treatment outcome (Blatt & Zuroff, 2002). Zuroff and colleagues (2000) suggest that poor treatment outcome may be due to a failure to develop a strong therapeutic alliance, indicating that perfectionistic individuals have interpersonal problems that also carry over to the therapeutic relationship. Relational factors, also called common factors, are considered central in therapy. These include the therapeutic alliance, empathy, respect, and the therapist's presence (Wampold, 2013; Norcross & Lambert, 2018). A meta-analysis on outcome expectancy-outcome association in therapy,

including 12,722 patients. suggests that the patient-therapist alliance is the most likely mediator of the relationship between outcome expectancy and treatment outcome (Constantino et al., 2018). The authors discuss that this most likely is a bidirectional relationship as outcome expectancy may influence the therapeutic relationship, but the alliance and ruptures of it also influence outcome expectancy.

These studies shed light on several processes which may contribute to worse treatment outcome in therapy of individuals with perfectionism. In particular, evidence that the extent to which perfectionism is seen as a problem for patients varies and that these beliefs may affect treatment outcome. These processes are intertwined and may indicate that differing therapeutic goals and expectations of the adaptiveness of perfectionism may negatively impact the therapeutic relationship. However, it is important to note that there are several factors which make generalizing these results difficult. For example, which clinical populations are studied, and how constructs such as outcome expectancy or treatment outcome (i.e. symptoms of depression, anxiety, etc.) are defined and measured can vary widely.

1.4 Self-compassion

Self-compassion originates from the concept compassion, meaning to feel for someone who is suffering and wanting to help ease that suffering (Strauss et al., 2016). Self-compassion is a concept which similarly to mindfulness has been adopted from Buddhism. However, Buddhism paradoxically does not traditionally differentiate between compassion and self-compassion due to the concept of non-self, meaning that the division between our own identity and the world around us is an artificial division. This is because it is thought that a person is inherently linked and a part of the world and not separate from it (Kornfield, 2009). However, since its introduction to Western societies, self-compassion has been defined as directing and feeling compassion for oneself (Neff, 2003). Kristin Neff, a pioneer of the self-compassion field and developer of the Self-Compassion Scale, explains that people are often more compassionate toward others than they are themselves and therefore describes self-compassion as treating oneself with similar kindness as one would

extend to a good friend who is suffering. Neff argues that self-compassion is crucial to dealing healthily with life's failures and challenges (Neff, 2003).

Self-compassion has been defined as comprised of three diametrical components as measured by the Self-Compassion Scale: self-kindness vs. self-judgment, mindfulness vs. over-identification, and common humanity vs. isolation (Neff, 2003). Self-kindness consists of extending oneself support and kindness as opposed to harsh self-judgment. Common humanity acts as a reminder that imperfection is a shared human experience, so that one can use moments of suffering as a means of connecting to others as opposed to feeling separate, alone and isolated. Finally, mindfulness is described as being in the present moment with one's experiences, and neither overexaggerating nor downplaying one's hardships. Neff explains that mindfulness is crucial to being able to extend oneself self-compassion because mindfulness will help one attend to and notice one's difficult thoughts and feelings. In sum, self-compassion is the ability to show oneself kindness in instances of perceived inadequacy, failure, and suffering by attending to distressing experiences with kindness, mindfulness, and the ability to recognize these as a part of a shared humanity (Neff, 2015; Germer, 2009).

Neff (2003) further defines self-compassion in relation to more well-known constructs that often are confused with self-compassion: self-esteem and self-pity. Whilst self-esteem is a contingent evaluation of self-worth based on comparison to others, self-compassion is a way of relating and embracing oneself in difficult situations (Neff & Davidson, 2016; Neff, 2003). This means that whilst self-esteem is dependent on for example, positive achievements or comparing oneself to others, self-compassion is independent of these and is therefore considered healthier, more robust, and leads to a more stable sense of self-worth than high self-esteem (Leary et al., 2007; Neff, 2003). Although self-pity and self-compassion both focus on suffering, self-pity exaggerates suffering causing disconnect from others, whilst with self-compassion one wants to maintain a mindful and balanced attitude toward pain in

order to both soothe it, and experience one's difficulties as a shared human experience (Neff, 2003).

1.4.1. Self-compassion and mental health

Self-compassion is correlated to a number of positive indicators of mental health such as wellbeing, motivation, sense of connectedness and relatedness, and inversely with negative mental health outcomes (Barnard & Curry, 2011; James et al., 2014). Most prominently, cross-sectional studies report self-compassion as inversely correlated to shame and self-criticism in samples of students and shame-proneness, fear of failure, and fear of negative evaluation among athletes (Woods & Proeve, 2014; Mosewich et al., 2011). The three positive dimensions of self-compassion contrast with three aspects of shame as measured by: self-kindness with negative self-evaluation, common humanity with self-focus, and mindfulness with generalization of failure (Mosewich et al., 2011). Neff argues that self-compassion is effective in reducing self-criticism because whilst self-criticism activates the threat defense system and releases cortisol, self-compassion activates the Mammalian caregiving system and reduces cortisol by releasing oxytocin (Neff & Dahm, 2015)

Higher levels of self-compassion have also been shown to correlate with lower levels/symptoms of depression, anxiety, shame, stress, rumination, self-criticism, body shame, perfectionism, and fear of failure (Neff, 2003; Albertson, Neff, Dill-Shackleford, 2015; Diedrich, Hofmann, Cuijpers, & Berking, 2016; Johnson & O'Brien, 2013; Leary et al., 2007; Mosewich et al., 2013; Neff & Germer, 2013; Odou & Brinker, 2014; Shapira & Mongrain, 2010; Smeets, Neff, Alberts & Peters, 2014). Studies have reported that self-compassion based interventions can be successfully administered over a relatively short period of time, with large groups, and online (Ferrari et al., 2019). Ferrari and colleagues (2019) conducted a meta-analysis to examine the effects of randomized controlled trials of 27 self-compassion interventions between 2010-2017. Results indicate that self-compassion interventions can lead to significant improvements in eating behavior, rumination, stress, depression, self-criticism, and anxiety.

A randomized control study conducted at the University of Bergen found that a 2-week self-compassion course also resulted in gains in personal growth self-efficacy and healthy self-control, and decreased symptoms of anxiety and depression (Dundas, Binder, Hansen & Stige, 2017). Interviews with the participants of this intervention provided descriptions of having become more supportive and friendlier toward oneself, more aware of being too hard on oneself, feeling less alone when having painful feelings, being more accepting of painful feelings, and feeling more stable and peaceful (Binder, Dundas, Stige, et al., 2019).

1.4.2 Fear of self-compassion

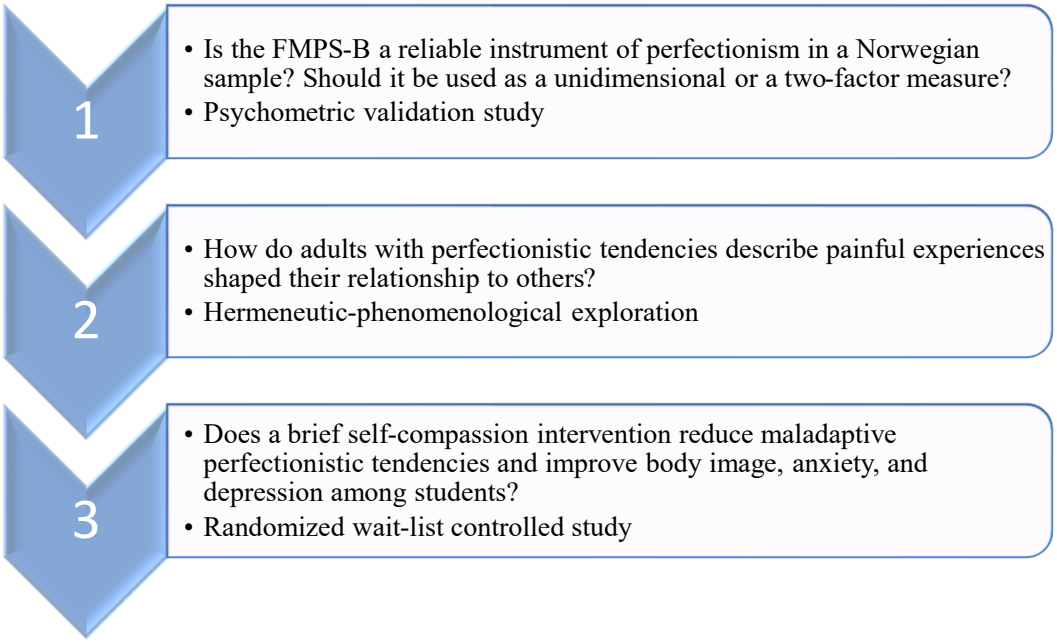
Despite evidence of self-compassion's positive associations to mental health, research shows that some individuals can experience self-compassion as threatening. This is documented among individuals who are highly self-critical, with insecure or avoidant attachment styles, or have experienced abuse, neglect or shame by caregivers (Liotti, 2010, Gilbert, McEwan, Matos, et al., 2011, Rockliff et al., 2008). Based on clinical observations and theory that self-compassion can be experienced as threatening for some individuals, Gilbert and colleagues (2011) designed a scale to measure different facets of fear of compassion using student and therapist samples. The subscales are fear of expressing compassion for others, fear of responding to the expression of compassion from others, and fear of expressing kindness and compassion towards oneself. The subscale fear of compassion for self (here on referred to as fear of self-compassion) and fear of compassion from others had a high correlation. They also found that men had significantly higher fear of self-compassion than women. Fear of self-compassion was associated with feelings of inadequacy, self-hatred, and low self-assurance. In addition, fear of self-compassion was significantly correlated to "Adult Attachment Scale's" three subscales, positively with anxious and negatively with close and dependent. These subscales in different combination make up attachment styles "secure", "anxious", and "avoidant" as previously described by Hazen & Shaver (1987). Fear of self-compassion was highly correlated to anxious attachment styles among the therapist group. Among students, fear of self-

compassion was linked to depression, anxiety, and stress, whilst it was only correlated to depression for therapists (Gilbert et al., 2010).

1.4.3 Self-compassion and perfectionism

Self-compassion is negatively correlated with maladaptive perfectionism (Neff, 2003). Recent studies indicate that self-compassion may buffer the influence of maladaptive perfectionism on depressive symptoms (Mehr & Adams, 2016) in both adults and adolescents (Ferrari et al., 2018). In addition, a cross-sectional study of 302 participants with bipolar disorder diagnosis indicates that self-compassion mediates the relationship between maladaptive perfectionism and anxiety, depression, and emotional regulation in this population (Fletch et al., 2019). Self-criticism on the other hand, has been reported to be a mediator in the relationship between maladaptive perfectionism and distress in a cross-sectional study (Rimes, 2014). Stoeber and colleagues (2020) measured the different subscales of perfectionism as measured by the MPS and how these relate to self-compassion/compassion and subjective wellbeing. The authors found that self-compassion and compassion fully accounted for the relationship between socially prescribed perfectionism and subjective wellbeing. Other-oriented perfectionism was linked to lower compassion for others, and self-oriented perfectionism lower self-compassion. Whilst there have been few intervention studies for perfectionism, self-compassion interventions have underlined humans' ability to change how we relate to ourselves in challenging times. At the same time, self-compassion and perfectionism are connected constructs and self-compassion may moderate the effects of perfectionism on mental health, so that individuals high in self-compassion might not be as negatively affected by perfectionistic tendencies.

1.5 Research questions and aims of the study



1.5.1 Aims, research question, and hypothesis for paper 1

In order to study perfectionism in a Norwegian population, this paper aimed to translate, validate and study the psychometric properties of the FMPS-B. The aim was to use the abbreviated FMPS-B. However, recommendations for the use of perfectionism instruments including the FMPS-B as unidimensional, two-factor, or multidimensional vary in the literature depending on which scales were included and which analyses were conducted in psychometric studies. This has implications for how to use the abbreviated scale and whether to view strivings and evaluative concerns as two separate factors or to study these combined. Because strivings and evaluative concerns were reportedly adaptive and maladaptive respectively, it was important to understand whether these could be separated to study their relationship to other dimensions of mental health. Our hypothesis was that the scale would consist of two factors.

1.5.2 Aims and research question for paper 2

Due to the perfectionism research field being predominantly quantitative, we wanted to better understand the phenomenon perfectionism through the lived experiences of individuals who have perfectionistic tendencies. What does it mean to live with perfectionistic tendencies, and how do perfectionists describe relating to themselves and others when confronted with challenges in life? We interviewed nine students who scored in the top 5% of perfectionism, as measured by the Frost Multidimensional Perfectionism Scale-Brief, using the semi-structured life story interview redeveloped by McAdams in 2008. For contrast we also conducted interviews with six individuals who scored lowest on perfectionism. The study used a hermeneutic-phenomenological exploration (Finlay, 2002; Binder et al., 2012), following the steps outlined by Braun & Clarke's reflexive thematic analysis (Braun & Clarke, 2019), and used group coding and analysis with NVivo 12 to identify key themes (QSR International Pty, Ltd., 2020). This qualitative methodology allows for a broader, bottom- up and in-depth exploration of perfectionism and identified key relational themes. After familiarizing ourselves with the data, we further narrowed the research question to study how the individuals interviewed described that painful events had shaped their relationships to others. This narrowing allowed us to focus our findings with and present greater detail and nuance. This work highlights the individual's lived experience, and thereby emphasizes their own accounts, self-reflection, and narrative and increases our knowledge of how perfectionists understand the relationship between difficult life events and how they relate to others.

1.5.3 Aims, research question and hypothesis for paper 3

The third paper is a quantitative study which aimed to study the effects of a self-compassion course on students' mental health, perfectionistic tendencies, and body image. Whilst the second study interviewed a limited number of students to gain a more focused and detailed understanding of the phenomenon perfectionism, the third study's strength is its large population size which provides a greater external validity or generalizability of the effects of the intervention, insight into the relationship

between self-compassion and perfectionism, and the malleability of perfectionistic tendencies. A total of 89 students completed a 5-session Mindful Self-Compassion course aimed at increasing self-compassion and reducing maladaptive perfectionism, anxiety, depression, and unhealthy body image.

The investigators aimed to test the following hypotheses:

- At baseline, high level of maladaptive perfectionism will be related to lower baseline self-compassion, higher levels of depression and anxiety and lower levels of body appreciation.
- The intervention, a five session self-compassion intervention, will be sufficient to induce positive changes in perfectionism and anxiety, depression, and body-appreciation.
- Changes in self-compassion will co-vary with changes in maladaptive perfectionism, anxiety, depression and body appreciation.
- Higher baseline levels of maladaptive perfectionism will predict greater gains from the intervention.

2. Methods

2.1 Theoretical approach

This doctoral project allows us to gain a broader understanding of self-compassion and perfectionism by utilizing both qualitative and quantitative methodological approaches. Although each individual study in this project does not use a mixed method design and therefore do not qualify as mixed methods research, this doctoral project may be, because it consists of both qualitative and quantitative studies in order to study different aspects of the same phenomena. Mixed methods can be defined as combining both qualitative and quantitative research elements in each study: "a class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study" (Johnson & Onwuegbuzie, 2004). However, other definitions also expand on the term mixed methods for projects and programs, "mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (that is, use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration. A mixed methods study would involve mixing within a single study; a mixed method program would involve mixing within a program of research and the mixing might occur across a closely related set of studies" (Morse & Niehaus, 2009).

Quantitative and qualitative methods have different strengths and aim to answer different types of research questions and thereby become complementary methods which may shed light on different aspects of the same studied subject, especially in psychotherapy research (Elliott, 2012; Malterud, 2002). For example, study 3, a quantitative study employs the scientific method of using deduction in order to test hypothesis such as, "The intervention will be sufficient to induce positive changes in perfectionism and psychological symptoms of anxiety, depression and body-appreciation- reversed", whereby data analysis results will lead to a conclusion. On the other hand, qualitative research methods explore experiential depth and answer

"how" and "what" questions of process and change (Binder et al., 2012). In study 2, we seek to make inductive inferences when investigating experiences of individuals, in this case with perfectionistic tendencies, by interviewing them in order to discern patterns and infer theories or explanations. We used a hermeneutic-phenomenological exploration to better understand perfectionism through the lived experiences of the individuals interviewed. Hermeneutic-phenomenology refers to the researcher's call to give thought to their own experiences and explicitly communicate how their position and experiences relate to the research subject (Laverty, 2003). The hermeneutic process is considered a circular co-construction of understanding between the participants and the researcher which involves collaborating to bring life to the experiences being explored through imagination, the hermeneutic circle, and attention to language and writing (Laverty, 2003). As Binder and colleagues (2012) write, investigating individuals' experiences brings a tension between addressing the participants' idiosyncratic world, whilst also attempting to compare, abstract, and make general statements about patterns within a group. We aim to identify key themes among students with perfectionistic tendencies, with a broad-bottom up exploration. However, even qualitative approaches are often influenced by existing theories, which guide the research question posed. And even when not explicitly stated beforehand, theories and presuppositions may guide the researchers' scientific interest and interpretations of what they learn and are as a result not entirely inductive. Unlike quantitative research, in qualitative research, objectivity is not of itself a goal because a qualitative researcher must accept the unavoidable influence of themselves on the work and how it is carried out (Finlay, 2002). Instead trustworthiness and transparency are considered hallmarks of rigorous qualitative research (Guba & Lincoln, 1994). Within the hermeneutic exploration this involves exploring individuals' experiences with reflexive awareness. Malterud (2001) defines reflexivity as "an attitude of attending systematically to the context of knowledge construction, especially the effect of the researcher, at every step of the research process." Reflexivity involves understanding and reflecting upon how the researchers' preunderstanding may have affected all aspects of the research process:

from the planning, recruiting, interviewing, and analysis of the transcribed material (Finlay, 2002).

2.2 Methods

In sum, this study uses different methods to answer different types of questions which stem from different theoretical frameworks but nevertheless inform and build upon each other. The table below aims to provide an overview which highlights both the unifying purpose and question, and identifies the different types of questions asked and the methods used to answer these.

Table 2. Overview of the thesis and research articles

Study purpose	Increase our knowledge of perfectionism and self-compassion		
Main research question	How do individuals with perfectionistic tendencies describe challenging experiences shaped their relationship to others? Can a brief course in self-compassion improve students' perfectionistic tendencies and mental health?		
Articles	I	II	III
Title	The Psychometric Properties of the Frost Multidimensional Perfectionism Scale-brief	Perfectionistic Individuals' Understanding of How Painful Experiences Have Shaped Their Relationship to Others	A Randomized Control Study of a Brief Self-Compassion Intervention for Perfectionism, Anxiety, Depression and Body Image
Research question	Is the FMPS-B a reliable instrument of perfectionism, and should it be used as a unidimensional measure of perfectionism or a two-factor, measuring strivings and evaluative concerns perfectionism separately?	How do adults with perfectionistic tendencies describe painful experiences shaped their relationship to others?	Is a brief self-compassion intervention for students accompanied by reductions in perfectionistic tendencies, as well as changes in

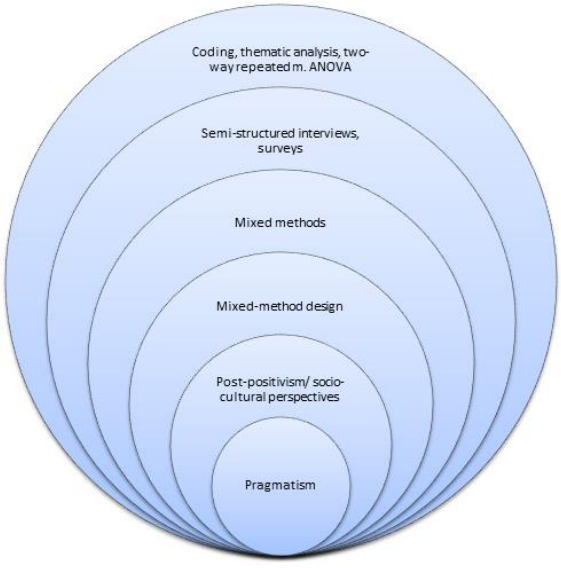
			indicators of mental health?
Design	Psychometric scale validation and analysis	Phenomenological-hermeneutic exploration	Randomized wait-list controlled study
Sample	383 students	9 students scoring in the top 5% on the FMPS-B	89 students
Data	Self-report questionnaires	Survey, semi-structured interviews transcribed verbatim	Self-report questionnaires
Analysis	Confirmatory factor analysis, pure bifactor modeling	Thematic analysis, coding	Two-way repeated measures ANOVA; multi-level modelling, descriptive

Philosophy of science

Methods, measurements, analyses, and interpretations are shaped by and shape our understanding of the world around us and the research process. To establish cohesion between the theoretical and methodological we identify our own ontological and epistemological position (Goertz & Mahoney, 2012). Whilst ontology asks what is the nature of the world, epistemology asks what constitutes acceptable knowledge. As is common with mixed methods approaches, this study is ontologically rooted in pragmatism which states that we use the methods required to study the phenomenon in question as first proposed by the philosophists, William James and John Dewey. Epistemologically this study employs both post-positivism and social constructionist perspectives. Post-positivists, unlike positivists, emphasize that the researcher influences what is observed through theory, hypotheses, background knowledge and values. Meaning that rather than striving toward complete independence between the researcher and data, post-positivism acknowledges objectivity by acknowledging potential bias (Popper, 2005; Robson, 2002; Alvesson & Skoldberg, 2017). Social

constructionism is a broad and multi-faceted perspective which has been related to a number of philosophical stances: postmodernism, discourse analysis, ethnomethodology, positivism and critical realism. For the scope of this thesis, we emphasize social constructionism theory which posits that meaning is co-created with others rather than independent within each person. We assume that meaning is constructed in communication and interaction with other people, and people, including researchers, are inherently affected by our experiences and beliefs (a social constructionism perspective) (Littlejohn & Foss, 2009; Alvesson & Skoldberg, 2017). However, we also hold the ontologically post-positivist belief that objective truths and reality exist, but assume that we can only attain imperfect knowledge based upon probability (Popper, 2005; Alvesson & Skoldberg, 2017). As a result of our epistemological background, we use reflexivity to apply scrutiny and honesty to the work, and aim to be transparent about the way in which our experiences and values may have potentially influenced the research. In addition, we use tools such as triangulation in research, measuring a phenomenon with multiple available tools, in order to reduce bias of one research method and increase the validity and credibility of these findings.

Table 3. Cohesion between philosophy of sciences and methods



2.3 Research Design

2.3.1 Participants and procedure

Participants for all three studies were recruited over the course of three semesters from the University of Bergen (UoB) and Norwegian School of Economics. The different faculties that make up UoB assisted in data collection by distributing information and links to the study through their preferred communication channels with students. E-mails, newsletters, Facebook pages and the University websites were used. Over the course of these three semesters, 2,381 students received information about the study by e-mail and 423 students began filling out the questionnaires. Of these, 383 participants completed the FMPS-B for paper 1, 15 of these were interviewed for lifestory interviews for paper 2, and 88 completed a course in self-compassion for paper 3.

2.3.2 Participants and procedure for paper 1

Students were provided with a brief description of a research study on a self-compassion course for students with a SurveyXact link to an informed consent form and the surveys. The informed consent page in SurveyXact described the study and provided different choices. Participants could choose to sign up for a short self-compassion course, simply continue filling out the survey without signing up for the course, or discontinue. Participants who filled out the surveys were aged 19-65 with a mean age of 27.

2.3.3 Participants and data collection procedure for paper 2

Participants who filled out the SurveyXact forms and scored highest and lowest in perfectionism were invited to participate in a lifestory interview developed by McAdams. Nine out of 10 individuals who scored highest in perfectionism agreed to participate. Participants were aged 20-50 and included 2 men and 7 women. An additional 6 participants scoring lowest on perfectionism were invited for the same lifestory interviews and provided valuable contrast and context for our analyses. Each interview was conducted over the course of one or two days depending on length.

Interviews lasted between 2 to 6 hours and were transcribed verbatim by the first author.

2.3.4 Data collection procedure for paper 3

Participants who filled out informed consent and chose to sign up for a self-compassion course were randomly assigned to one of two conditions: wait-list or control group. The control group had two baseline measures prior to beginning the self-compassion course, three weekly measures while completing the course, and one measure post completion. The wait-list group completed three baseline measures prior to beginning the self-compassion course. The third baseline measure was completed simultaneously as the control group completed the post course measure. The wait-list group also filled out three weekly measures while completing the course and one measure post course completion.

2.4 Instruments and measures

2.4.1 Self-report measures for paper 1

Self-Compassion Scale- Short (SCS-S) is the short version of the Self-Compassion Scale (Raes, Pommier, Neff, & Van Gucht, 2011). The short version consists of 12 of the original 26 items scored on a 5 point Likert scale from 1 (almost never) to 5 (almost always). Alike the original, the short version also includes both items from the positive dimensions of self-compassion: self-kindness, mindfulness, and common humanity, and items from the negative dimensions: self-judgment, over-identification and isolation. The items are directly from the original self-compassion scale which has been translated and validated in a Norwegian student sample (Dundas, Svendsen, Wiker, Granli, & Schanche, 2016) The short form has been reported to have good internal consistency and to be highly correlated with the original form ($r \geq 0.97$) (Raes et al., 2011). The short form showed good internal consistency in a previous Norwegian study: Chronbach's alpha = 0.88, Dundas, Binder, Hansen, & Stige, 2017). *Frost Multidimensional Perfectionism Scale-Brief* (FMPS-B) was used to measure perfectionistic tendencies. The scale has eight items, four of which represent

evaluative concerns and the remaining four represent strivings. Items are rated on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). The scale's internal consistency (Cronbach's alpha) in our study was 0.83.

State-Trait Anxiety Inventory (STAI). The trait scale of the STAI (Spielberger, Gorsuch, & Lushene, 1970) was used to measure symptoms of anxiety. The scale's 20 items are rated on a Likert scale from 1 (almost never) to 4 (almost always) and reflect general feelings of anxiety. The scale was previously validated in Norwegian (Håseth et al., 1990) and had an internal consistency (Cronbach's alpha) of 0.90 in our study.

Major Depression Inventory (MDI) was used to measure symptoms of depression over the past two weeks. The MDI consists of 13 items on a Likert scale from 1 (not at all) to 6 (all of the time) (Bech et al., 2001). There are two pairs of items in which only the highest score of each pair is used for the total score. The scale was previously validated in Danish (Olsen et al., 2003), and had a Chronbach's alpha of .87 in a previous Norwegian student sample (Dundas et al., 2017). In our study, the instrument had an internal consistency (Cronbach's alpha) of 0.88.

2.4.2 Qualitative interview for paper 2

For paper 2 we translated the lifestory interview developed by McAdams (McAdams, 2008). The interview is semistructured with specific questions of moments in an individual's life and suggested prompts which allow for elaboration and more in-depth accounts of events. The suggested length of the interview is approximately 2 hours, however some interviews lasted up to 6 hours. In this case, participants were asked about their preference to complete the interview or discontinue due to time. All participants wanted to complete the interview. There are three main parts in the interview. First, the interviewee is asked to provide a brief 20-minute summary of their life, divided into chapters, with emphasis on how the individual went from one chapter to another. Then participants are asked to identify and describe in detail key life events in the following categories: a high point, a low point, a turning point, a high point in childhood, a low point in childhood, one's main life challenge, health

challenge, loss of an important person, biggest regret or failure, a spiritual moment, and a moment of wisdom. The interview asks participants to describe the moment they identified for each category with as much detail as possible: when and what happened, who was there, how did you feel, and what did you think. They are then asked to reflect on what this scene may say about them as a person or about their life story. The final part of the interview asks the individual to describe their future projects, plans, dreams, hopes, and their beliefs on spirituality, politics, morals, ethics and values. The last question asks participants to identify what they would describe as the main theme of their life before finally debriefing.

2.4.3 Self-report measures for paper 3

In addition to the aforementioned scales: SCS-S, FMPS-B, STAI and MDI, participants in paper 3 also filled out the Body Appreciation Scale.

Body Appreciation Scale (BAS) is a 13 item instrument which assesses body image on a Likert scale from 1 (never) to 5 (always). A higher score indicates higher body image appreciation. The scale has shown acceptable reliability and validity but has not been validated in a Norwegian sample (Avalos, Tylka, & Wood-Barcalow, 2005).

2.4.4 Mindful Self-Compassion Intervention

Mindful Self-Compassion (MSC) was developed by clinicians and researchers Christopher Germer and Kristin Neff and was originally designed as an 8-week course which is now also offered as an intensive program (Neff & Germer, 2018). MSC often resembles other mindfulness approaches, but ads an active self-compassionate component. For example, when focusing and following one's breath, exercises from for example Mindfulness Based Stress Reduction (MBSR) will focus attention on not judging thoughts and feelings that emerge, whilst MSC asks participants to direct attention towards phrases of loving-kindness. Neff describes that whilst mindfulness allows one to first turn toward and acknowledge difficult thoughts and feelings, the self-compassionate aspect of MSC seeks to respond to these difficulties with kindness, sympathy, and understanding in order to alleviate pain

(Neff & Dahm, 2015). In our study, the intervention consisted of five sessions and lasted three weeks. The course was made up of self-compassion and mindfulness exercises from primarily MSC but also MBSR. Each seminar lasted 3 hours, and on the second to last week we offered a half-day silent retreat day for participants to fully immerse themselves and practice the core MSC exercises. Each weekly session was made up of several 15-minute lectures, guided exercises, group discussions, and guided experiential practices, apart for the silent half day retreat which consisted entirely of guided experiential practices. The MSC practices and exercises consist of guided meditations, such as "affectionate breathing", but also exercises which encourage self-reflection such as asking participants to identify their own core values, or reflect on how they treat themselves in difficult situations. MSC teacher-training emphasizes the importance of "inquiry" after experiential exercises. In inquiry, the group is asked after each practice if anyone wants to share and explore their experiences, and MSC teachers provide a safe environment to explore both positive, but especially difficult experiences. This serves several important functions, it can guide participants to identify painful experiences with self-compassion called backdraft, normalizes these difficulties and reduces shame, and also guides participants to adopt a more self-compassionate attitude toward their own self-compassion practice. Backdraft is term commonly used in MSC and is a metaphor from firefighting, which describes when opening a door to a fire, the increase in oxygen can increase flames. In MSC, backdraft refers to emotional pain which may arise when one learns to love oneself or treat oneself kindly: "When we give ourselves unconditional love, we discover the conditions under which we were loved" (Neff & Germer, 2018). In order to be available to anyone who struggled with backdraft during the course, there were two psychologists present during these seminars.

2.5 Data Analysis

2.5.1 Quantitative analyses for paper 1

Paper 1 assessed the Frost Multidimensional Perfectionism Scale-Brief's unidimensionality and two-factor structure through confirmatory factor analysis (CFA) and pure bifactor modeling. First basic descriptive statistics and the Kaiser-Meyer-Olkin measure were utilized to evaluate for skew and kurtosis and sphericity. This determined whether the scale's factor structure could be analyzed. The pure exploratory bifactor analysis using the FACTOR program estimated the instrument's unidimensional congruence (UniCo) and explained common variance (ECV) which indicate the scale's closeness to unidimensionality. The CFA was conducted with robust maximum likelihood estimation using "lavaan" in R (Rosseel, 2011; R Core Team, 2016), and was used to analyze the two-factor structure previously recommended by Burgess and colleagues (2016). The comparative fit index and root mean square error of approximation were used to indicate goodness of fit (CFI; Bentler, 1990; RMSEA; Steiger, 1990). Convergent validity of the scale was analyzed using Pearon correlations to measures of depression (MDI; Bech et al., 2001) and anxiety (STAI; Spielberger et al., 1983) which were, based on theory and previous research, expected to correlate significantly to evaluative concerns, and weakly or not at all to strivings.

2.5.2 Qualitative analyses for paper 2

In paper 2 we used hermeneutic-phenomenological exploration. Van Manen (1990) defines phenomenology as "the study of lived experience". Whilst hermeneutic-phenomenological exploration is a reflexive approach and consists of interpretive and explorative analysis of the lived experiences of individuals. Thus the goal of qualitative methods is to gather and disseminate rich descriptions and explanations of how people make sense of and experience events and the world they live in (Coyle, 2007; McLeod, 2011). This approach acknowledges the researchers' unavoidable impact on the work, from data collection, analysis to the interpretation of the data and aims to use reflexivity in order to understand this inherent impact (Finlay, 2002; Binder et al., 2012). As Finlay (2002) describes, reflexivity is the immediate, continuing, dynamic, and subjective self-awareness, which can turn the researchers'

inherent subjectivity from a problem to an opportunity from which meaning is cocreated.

Life narratives were collected using McAdams' life story interview which helped us explore perfectionistic individuals' self-identity (1995). Developmental theories suggest that one's identity is cocreated in relation to others, based on feedback and as a result of early relational experiences (Horney, 1945, 1950; Winnicott, 1960; Mikulincer et al., 2010). McAdams asserts that individuals use internalized narratives, such as one's life story, to provide unity and purpose to one's life. However, these stories about who we have become and will be, and how we tell our stories continuously evolve and can be shaped by the context and people around us (McAdams, 2001).

We followed Braun and Clarke's (2019) step by step guidelines to thematic analysis. First we familiarized ourselves with the data by transcribing, reading and rereading the the interviews of individuals' life stories. We discussed our initial impressions and began generating initial codes in NVivo 12 (QSR International Pty Ltd., 2020). This bottom-up exploration resulted in several relational themes. In order to present more in-depth findings and reduce the scope of the first article the research question was refined to encompass these key relational/interpersonal themes. The interviews were recoded to address interpersonal themes. We studied the relationship between codes for overlap and differences and used virtual representations in NVivo 12 as a tool (QSR International Pty Ltd., 2020). Themes which were no longer relevant to the research question were dismissed, whilst themes that remained too broad were further divided. When all themes were identified, they were named and summarized. Findings in the study were presented so that both similarities and differences in experiences were emphasized, meaning both overlap in experiences were highlighted as well as the scope of contrast in the participants' experiences.

2.5.3 Quantitative analyses for paper 3

A priori power analysis was conducted to test the differences within and between two independent group means (mixed ANOVA) with a small to medium effect size

(Cohen's d = .30), and an alpha of .05. The power analysis indicated that the analysis required a sample of 90 participants to achieve a power of .80. To compare the control group and active treatment group we used a repeated measures analysis of variance (ANOVA). Mixed level modeling was used, combining both groups for increased power, to analyze if outcome measures changed significantly over time.

2.6 Ethical Considerations

Participants in paper 2 had no prior relationship to the interviewer, but were informed that she would also be holding a course in self-compassion which all participants had signed up for. The first author informed the participants that their responses were anonymous and confidential. Participants were informed that participation in the course was not contingent upon participating in the interview. Participants were informed that they could discontinue their participation from the study at any point prior to publication of the article.

2.7 Reflexivity/Axiology

This part of the paper aims to engage in a critical self-reflection about how preconceptions and subjective perspectives may affect this qualitative research work (Finlay, 2002). Reflexivity involves "attending systematically to the context of knowledge construction, especially to the effect of the researcher, at every step of the research process" (Malterud, 2001). It is paramount to the hermeneutical-phenomenological approach, which is the interpretive and explorative analysis of the lived experience of my research participants, to acknowledge and be open about the unavoidable influence the researcher has to each aspect of the research process: from the conception of project, data collection, the analysis, and the interpretation of such work (Binder, Holgersen & Moltu, 2012; Finlay, 2002). This means that instead of aiming to be free of bias and prejudice, reflexivity acknowledges that researcher inevitably will have these and allows one to critically examine one's preconceptions and impact on the research work. Instead of understanding these as purely potential biases or errors, the researchers' experiences and subjective understanding are also

considered the tools with which researchers can understand others' experiences (Kvale & Brinkmann, 2008).

Researchers

In our work, we aim to discuss how one's individual background, preconceptions, and subjective perspectives can affect the research and research process. Throughout the study, we used supervision and notes on personal responses and reactions to the qualitative data to discuss our impact on and role in the research process. For example, because this author has a different cultural background (Polish, American, and German) than our research participants, we discussed how our cultural expectations could affect the interpretations and analyses. Individualistic goals and emotional expression can vary in different cultures and thereby influence the cross-cultural analysis (Triandis and Gelfand, 2012). By interviewing both individuals who scored high and low on perfectionistic tendencies, we aimed to increase our understanding of what aspects of the data could be cultural differences, as opposed to expression of perfectionistic tendencies. This study was conducted within the Research Group for Clinical Psychology at the University of Bergen and all co-authors had previous experience with qualitative research.

Experience

Personal and professional experiences in my life have impacted and influenced my interest in both mindfulness and compassion by both providing me with personal relief from stress, but also introducing me to a community which shared an interest in self-development and reflection. My personal experience with meditation traditions began when I studied psychology and holistic health at San Francisco State University from 2006-2009. Holistic health seemed to me to be a natural complementary study to psychology as they offered subjects that, at the time, were not included under psychology, such as the use of biofeedback, progressive muscle relaxation, and cultural backdrops to different forms of traditional healing and meditation practices (i.e. acupuncture, mind body connection, meditation). Being introduced to Eastern and Western holistic traditions also provided a great historical

context to the development of therapeutic interventions rooted in Buddhist meditation traditions. In 2011 I attended my first silent 10-day Vipassana retreat and began practicing mindfulness daily. This project has been meaningful, in both contributing to the field of psychology, studying how to improve mental health, but also by allowing me to develop both as a clinician and mindfulness practitioner. For example, during this PhD I undertook a teacher-training in Mindful Self-Compassion (MSC).

Therapeutic affiliation

My professional training began psychodynamic tradition and placed a lot of emphasis on the past, interpretations, the unconscious, subconscious processes, and ultimately increasing insight. I have greatly valued that experience in order to better understand myself and how I came to be the person I am today, personally and professionally. I have also had clinical supervisors of existential, client-centered, cognitive-behavioral, and integrated traditions. What has resonated the most with me have been the client-centered and existential traditions. I have also worked in the field of substance-abuse for several years which is often very medically and cognitive-behaviorally oriented; however, this experience in a largely stigmatized field strengthened my understanding of the existential needs and fears we all share, and the importance of relationships and especially unconditional positive regard in therapy when working with shame. Tools from many theoretical traditions can be powerful in therapy, but the bedrock of my theoretical understanding of change lies in the power of the therapeutic relationship.

3. Results

3.1 Summary of paper 1

The pure exploratory bifactor analysis indicates that the overall unidimensional congruence in the FMPS-B is less than 0.95 and therefore the FMPS-B does not perform as a unidimensional instrument. The (UniCo = 0.66, BC bootstrap 95% CI = 0.54–0.73). The value of ECV is less than 0.85 (ECV = 0.46, BC bootstrap 95% CI =

0.03–0.72). However, on an item level, two of eight have item i-UniCo values greater than 0.95. No items have i-ECV values greater than 0.85. In addition, all items load significantly on the general factor (0.30) in the bifactor model rotated loading matrix. Only one item loads significantly on the general factor and not on any of the subfactors. Thus, the pure bifactor exploratory analysis indicates that the unidimensional model is not a good fit despite some unidimensionality on item level. The CFA supports the two-factor has a good to excellent fit (CFI = 0.94; RMSEA index = 0.09, standardized root mean square residual (SRMR) = 0.07). Evaluative concerns correlate significantly to both measures of anxiety [$r(353) = 0.53$, $p < 0.01$] and depression [$r(353) = 0.42$, $p < 0.01$], whereas striving has a weak correlation to anxiety [$r(353) = 0.14$, $p < 0.01$] and does not correlate significantly to depression.

3.2 Summary of paper 2

It is important to note that all but one informant disclosed having been bullied, abused, neglected, or experienced significant losses during childhood, but how participants described they reacted to these painful relational experienced varied. Our findings identified two overarching themes: “You can't always trust people” and “A distancing from others.” The first main theme, “You can't always trust people,” describes participants' experiences of not being able to trust other people and touches on aspects of personal control through responsibility and independence. The overarching theme “A distancing from others” describes participants' experiences of achieving both emotional and physical distance from other people who have or could hurt them. Each main theme comprised two subthemes. “You can't always trust people” includes the subthemes “A childhood with big responsibility” and “I am still the responsible one.” These subthemes are divided by their timeframe. While “A childhood with big responsibility” outlines participants' history, the subtheme “I am still the responsible one” encompasses how this sense of personal responsibility still affects them today. The overarching theme, “A distancing from others,” is composed of “Keeping others at a distance to protect the inner self” and “Achieving physical distance to get a fresh start.” While “Keeping others at a distance to protect the inner self” illustrates how participants have achieved or try to achieve an emotional

distance from other people, “Achieving physical distance to get a fresh start” outlines the physical distance achieved by, e.g., moving or switching schools. In this study, we describe frequency of the categories in participants' accounts, where “all” refers to all participants, “most” refers to all but one, “many” refers to more than half, and “some” refers to less than half.

You Can’t Always Trust People

All informants described dramatic relational life events in childhood. Many described how other people had failed or hurt them. Informants highlighted the importance of taking matters into one's own hands and becoming the responsible one because one cannot rely on others. All informants discussed responsibly in various areas of their lives. For some, this was especially important in their youth and current relationships, whereas others highlighted maintaining control over personal qualities that could be judged by others, such as mental health, appearance, or performance.

I Am Still the Responsible One

While the first theme highlighted informants' experiences of having had a childhood with a lot of responsibility, the second theme reflects participants' experiences of taking a lot of responsibility today. Many informants underlined the importance of taking responsibility moving forward after learning that other people cannot always be trusted. This personal responsibility is described as extending to many areas, most notably mental health and relationships. Some explain that you can only hold yourself accountable for *your own* happiness because that is the only thing you can control, meaning that one is not in a position to control others’ happiness. Informants exemplified personal responsibility in relationships as taking responsibility for how you present yourself in affecting others’ judgments of you, to not let others down and thereby avoid losing them, being more critical of other people so not be hurt and treating others well to in turn be treated well.

A Distancing From Others

In “A distancing from others,” informants describe how they have established distance, both physically and emotionally, from other people in order to protect themselves. By keeping other people at arm's length, they protect their inner self from re-experiencing relational pain. However, participants also describe that emotional and physical distance comes at a cost and describe how insulating oneself from intimacy can also hurt.

Keeping Others at a Distance to Protect the Inner Self

Many informants described learning that people can be unreliable, unstable, untrustworthy, and sometimes dangerous. These experiences taught many participants to emotionally distance themselves to keep people out, end relationships, or otherwise insulate their inner self from potential harm. In contrast to the second theme, “I am still the responsible one,” in this third theme participants do acknowledge the power other people can have, but they outline their attempts to minimize the effect this can have on them. In this theme, participants share the various ways they achieve emotional distance from others in order to protect themselves. For some informants, it is difficult to make room for themselves in relationships out of fear of losing those important to them. A couple of informants described the difficulty in distinguishing their own needs from those of others. Many participants discussed the importance of boundaries in their relationships, in order to stay safe and make room for themselves: their needs, wants, and desires. Overarching for this theme is the shared experience, yet different ways in which informants keep others at a distance and protect themselves by not fully revealing who they are or what they need. By sequestering their inner self and creating emotional boundaries, some describe not only experiencing isolation, but also a sense of protection from being hurt, being taken advantage of, or losing oneself.

3.3 Summary of paper 3

Self-compassion had a negatively correlation with depression (N(353), r=-.55, p < .01), anxiety (N(353), r=-.72, p < .01) and positively with body appreciation (N(353), r=.59, p < .01) at baseline, meaning students who scored higher on self-compassion

prior to the intervention scored lower on depression and anxiety, and higher on body appreciation.

The control group and active treatment group were compared using repeated measures ANOVA at both baseline times and after the treatment group had completed the course compared to the control group, when they had not yet started the intervention. The series of 2x2 repeated measures ANOVAS showed significant differences between the control group and the active treatment group in levels of self-compassion, evaluative concerns, anxiety, depression, and body image at the time when only the active group had completed the self-compassion course. There were both significant increases in self-compassion ($F(1,84)= 11.10$, $p<.001$, $\eta 2=.12$) and body image ($F(1,84)= 6.32$, $p<.05$, $\eta 2=.07$); and significant reductions in anxiety ($F(1,84)= 8.10$, $p<.01$, $\eta 2=.09$), depression ($F(1,84)= 7.20$, $p<.01$, $\eta 2=.08$), evaluative concerns ($F(1,84)= 5.15$, $p<.05$, $\eta 2=.06$). Perfectionistic strivings was the only measure in which the groups showed no significant differences ($F(1,84)= .14$, $p>.05$, $\eta 2=.00$). Thus, the intervention seemed to have induced positive changes in all outcome variables but not significantly affected perfectionistic strivings.

A multi-level modelling (MLM) analysis, combining both groups, and analyzing six points of time, replicated significant changes over time in self-compassion, evaluative concerns, anxiety, and depression. There were significant increases in self-compassion over time ($B=1.47$, $p<.001$). Significant reductions in evaluative concerns over time ($B=-.60$, $p<.001$), anxiety over time ($B=-1.58$, $p<.001$), and depression over time ($B=-.98$, $p<.001$). However, compared to the results of the ANOVA, in the MLM strivings also decreased significantly over time ($B= -.20$, $p<.001$), whilst body image did not decrease significantly ($B=-.35$, $p>.05$). In addition, there were significant differences in evaluative concerns ($B=-.11$, $p<.05$) and anxiety explained by age ($B=-.33$, $p<.05$).

In conclusion, the analyses resulted in some mixed findings. In the multi-level modelling analysis there was a significant decrease in perfectionistic strivings. However, this reduction was not as big as for evaluative concerns, and the ANOVA

showed no significant differences in strivings when comparing the intervention group with the waitlist group. In addition, the two analyses gave differing results for body appreciation. When comparing the groups in the ANOVA body appreciation was significantly higher for the intervention group than the wait-list group, but body appreciation did not change significantly in the multi-level modelling analysis which combined both groups measuring changes over 6 time points.

4. Discussion

The overarching aim of this thesis was to study how young adults respond to challenging experiences in life and investigate if a brief course in self-compassion can improve students' perfectionistic tendencies and mental health. This project 1) validated and examined the psychometric properties of a perfectionism scale, 2) explored perfectionistic individuals' descriptions of how life experiences have shaped their relationship to others, and 3) studied the effects of a brief self-compassion intervention for students on maladaptive perfectionism, anxiety, depression, and body image. These three studies together shed light on different aspects of the phenomena perfectionism and self-compassion. The following discussion of this thesis will present and unify the findings of the doctoral project beyond each study's individual findings by organizing these into two overarching headings, "Can perfectionism be adaptive?" and "Can maladaptive perfectionism be changed?" The discussion will also highlight implications of the findings for practice and future research, and strengths and limitations.

4.1 General discussion of the main findings

Can perfectionism be adaptive?

At the time of this thesis there is still no unifying consensus in the field regarding perfectionism's adaptiveness; however, the ongoing debate is important because it has implications for both individuals, clinicians and mental health systems. The implication of whether perfectionism can be adaptive is inherently value-driven because it poses the underlying question, can perfectionism partly be "good". If perfectionism is considered entirely negative or pathological it can have stigmatizing consequences for individuals who self-identify as perfectionistic. On the other hand, if perfectionism is maladaptive it places increased pressure on mental health practitioners and services to act or account for perfectionistic tendencies in treatment. This doctoral project explored this question by investigating if the short version of the Frost Multidimensional Perfectionism Scale could be divided into two factors to be studied separately, the subfactors correlation to measures of anxiety and depression,

and investigated how individuals with perfectionism describe difficult experiences shaped how they relate to others. In order to shed light on the adaptiveness of perfectionism, the results of this qualitative study are discussed in light of the question, "Do individuals with perfectionism describe perfectionistic tendencies have had an adaptive function in relationships?"

Does perfectionism (as measured by the FMPS-B) consist of adaptive and maladaptive factors?

In order to investigate if perfectionism can be adaptive, we first needed to determine if the construct being measured by the FMPS-B could be divided into two separate factors: strivings and evaluative concerns, or what is often referred to as adaptive and maladaptive perfectionism respectively. Previous studies have used different analyses and different measures to study perfectionism, and reported inconsistent findings in regards to how to accurately measure the construct. As a result of this psychometric debate in the perfectionism field as to how to accurately measure these, the validation study in this doctoral project evaluated whether the FMPS-B was better represented by a unidimensional or two-factor model.

To examine whether a unifactor or a bifactor structure best described our perfectionism data, our study used both a pure exploratory bifactor analysis and a CFA. On an item level, the exploratory bifactor analysis found that two out of eight items perform unidimensionally in the FMPS-B, but all items load on a general factor. When comparing the general factor to specific factors, it was weak, meaning that there was not strong support for the FMPS-B as a unidimensional construct. As a result of our findings, our study recommends the use of FMPS-B as a two factor measure as opposed to the total sum score of the FMPS-B. Similarly, Smith and Saklofkse (2017) compared goodness of fit and chose the bifactor model with a strong general factor after analyzing three different scales combined: MPS, FMPS, and APS-R. Although we did not find that the FMPS-B had a strong general factor, this may be a result of their use of several different scales, whilst we only analyzed the FMPS-B which was developed by Burgess and colleagues (2016) who removed

items with cross-loadings. This is relevant, because pooling items from different instruments intended to measure perfectionism will naturally lead to having more items with overlap and therefore the propensity of cross-loading. In addition, bifactor analyses tend to overfit even random data. In practical application, when studying perfectionism with the FMPS-B, the scale performs best as a two-factor instrument. The implication of a two-factor solution is that going forward, strivings and evaluative concerns and their association to other outcome measures can be studied separately.

Our study found that both FMPS-B factors, evaluative concerns and strivings, correlated significantly with anxiety, but only evaluative concerns had a significant correlation to depression. In addition, although strivings correlated significantly with anxiety, this correlation was smaller than for evaluative concerns. This contributes to findings in the perfectionism research field which indicate that strivings may not be as maladaptive as evaluative concerns, however, it does not indicate strivings is purely adaptive, as both factors are associated with symptoms of anxiety. These cross-sectional findings indicate correlation between these constructs but cannot indicate any causal relationship.

Do individuals with perfectionism describe perfectionistic tendencies have had an adaptive function in relationships?

As previously discussed, one major ongoing debate in the perfectionism field, is the extent to which perfectionism can be adaptive. In order to fill this gap in the literature, it is important not only to draw on correlative studies, but also to explore how individuals with perfectionistic tendencies understand perfectionism's function and development. Also, if individuals with perfectionism do experience perfectionism as partly adaptive, how they describe perfectionistic tendencies have served them.

In the second study we explored perfectionistic individuals' own understanding and experiences through qualitative methods. Life story interviews with nine perfectionistic individuals identified two overarching themes in their understanding as to how painful experiences shaped their relationship to others. These themes are

loss of trust in others and both emotional and physical distancing. Many individuals interviewed could identify a single affect-laden experience which led to a sense of loss of safety, distrust, or hopelessness. The participants' reactions to these painful experiences were described in the following four themes: "A childhood with big responsibilities," "I am *still* the responsible one," "Keeping others at a distance to protect the inner self," and "Achieving physical distance to get a fresh start."

In the first theme "A childhood with big responsibilities," participants describe how dramatic, and for most traumatic, relational experiences formed them to become independent and responsible in order to survive and cope with difficult events. Despite describing many positive aspects of independence and even agency, some participants explain that these traits developed out of necessity and did not feel like a choice. In order to highlight this two-sided representation of having to adopt these traits and values early on we discuss the first theme as both the price and pain of a childhood with big responsibilities.

In the second theme, "I am *still* the responsible one," participants reflect on how taking responsibility has continued to be important trait for them today, often long after the original need for independence and responsibility first occurred. Taking responsibility allows the participants to maintain a sense of personal control or agency, most notably related to mental health, and even in how they are evaluated or judged by other people. However, maintaining a sense of responsibility is also two-sided, because when participants describe losing a sense of control over for example, their emotions or mental health, they describe blaming themselves, which only further enforces the exaggerated self-critical attitude central to perfectionism.

The third and fourth theme outline how participants established distance from others either physically or emotionally. The third theme, "Keeping others at a distance to protect the inner self" describes how participants have used emotional distance to protect themselves from others. Horney (1945, 1950) similarly theorized that detached individuals will avoid emotional involvement or turn away from others. For the participants interviewed, emotional distancing may have helped them endure

relational traumas by using distance to prevent others from being able to inflict more relational pain. However, despite achieving some control, participants also describe feeling loneliness and fear or as Horney (1945) describes as estrangement and sacrifice of a sense of belonging. In addition, detached individuals may become numb to their own experiences, feelings, needs and desires.

The purpose of taking responsibility and social distancing is described as serving a protective function for participants. They describe having painful relational experiences from which they learn to value independence and agency. This is in line with existing theory, as Tomkins (1991) explains that life experiences that are especially affect-laden, such as painful relational experiences, shape scripts, meaning learning from previous affect-laden experiences and using these to predict and respond to similar affect-laden experiences later on in life. This is nevertheless described as a double-edged sword because foregoing intimacy through social distancing also increases vulnerability, at the same time as it allows individuals to maintain a sense of control.

It is not unusual that affect-laden or especially negative events such as adverse childhood experiences make a bigger impression on individuals, as Baumeister and colleagues (2001) explain that focus on negative stimuli has played an important role for humans evolutionarily both for survival and in order to remain a part of the in-group. Unfortunately, this also implies that negative experiences impact individuals more than positive. Scripts individuals create based on previous experiences guide how to react appropriately in similar future interactions, but these can often build upon overgeneralizations. These theories suggest that negative experiences are more likely to impact these scripts than positive. However, it is important to note that it is not pathological to respond associatively and learn from earlier life experiences, but Winnicott argues that it is one's ability to vary one's response with new experiences that is important.

In order to facilitate new experiences to change scripts it is is important to have new corrective experiences, which can be defined as experiences in which one comes to

understand or experience an event or relationship unexpectedly and differently (Castonguay & Hill, 2012). These experiences are considered a common curative factor across different therapy approaches (Castonguay & Hill, 2012). Unfortunately, social distancing and avoiding intimacy may serve as a potential barriers in having these new experiences. However, several authors also note that society has become more individualistic, competitive, and meritocratic (Curran & Hill, 2019; Gilbert, 2011). Perfectionism- researchers explain the rise in perfectionism the past 30 years through this development (Curran & Hill, 2019). If society, or essentially one's "in-group", rewards perfectionistic values, it places more emphasis on performance, competing with others and appearing perfect, which also is associated with less compassion and intimacy. Interestingly, if new values in society facilitate perfectionistic tendencies, this may simultaneously prohibit the new positive corrective experiences necessary for improving perfectionistic tendencies.

Can self-compassion interventions reduce students' maladaptive perfectionism, anxiety, depression, and improve body image?

Mindful Self-Compassion (MSC), developed by researcher and clinician Kristin Neff and Christopher Germer, is a course designed to provide individuals with new ways of compassionately and mindfully relating to oneself, as one would a good friend, in times of difficulty or suffering (Neff & Germer, 2018; Germer, 2009). Because self-compassion's inverse correlation to perfectionism, we hypothesized that by increasing self-compassion through a targeted and brief intervention one would also see reductions in maladaptive perfectionism, which consists of exaggerated self-criticism, doubts about actions, and fear of making mistakes. In addition, we expected to see improvements in symptoms of depression, anxiety, and body image. As discussed, study 1 indicated that in using the FMPS-B one should study evaluative concerns and strivings separately. This allowed for important observations as to how these potentially "adaptive" and "maladaptive" subfactors respond uniquely to increases in self-compassion. Results from this intervention study indicate that self-compassion can increase after only three weeks and that these changes were, as expected, accompanied by decreases in anxiety and depression over time. This

finding is consistent with previous research. A meta-analysis of the effects of 27 different self-compassion intervention studies between 2010-2017 indicate these have a significant impact on stress, depression, self-criticism, and anxiety (Ferrari et al., 2019).

The intervention study also indicated that self-compassion interventions can significantly decrease evaluative concerns, which supports our hypothesis. This is the first study that to our knowledge shows that a self-compassion intervention can have this effect. With regard to strivings, the different analyses were somewhat conflicting as the multilevel model suggested that the perfectionistic strivings decreased somewhat during the course, whilst the ANOVA did not. However, the observed decrease in strivings in the multilevel analysis was smaller than that for evaluative concerns.

A tentative hypothesis based in these findings is that evaluative concerns can decrease through a self-compassion intervention, whilst a decrease in strivings is less clear-cut. This could imply that individuals are able to maintain aspects of strivings, such as values of hard work, and high expectations of good performance, and simultaneously decrease fears of making mistakes and doubting one's actions (evaluative concerns). This hypothesis is in line with an assumption that student's intrinsic motivations to learn and achieve may remain stable after a self-compassion course whilst the perfectionistic tendencies associated with for example, fear of failure, may be reduced.

In summary, the thesis' main findings build upon each other and each contribute important perspectives on our current understanding of perfectionism and its adaptive and maladaptive subfactors. The first study validated the instrument FMPS-B in a Norwegian student sample and guided the two-factor use of evaluative concerns and strivings. The second study highlighted perfectionistic individuals' own understanding of how difficult relational experiences shaped them providing a more nuanced perspective of perfectionism and the experienced function it serves. And the third study contributed to our understanding of the effects of self-compassion

interventions on mental health, the malleability of perfectionism, and that evaluative concerns perfectionism might perhaps be reduced with less of an impact on strivings.

4.2 Strengths and limitations

The doctoral project's main strength is its combination of a broad mixed-methods approach, in addition to each study's individual strengths. Randomized control trials are considered a gold standard in research and through pre-registration and reflexivity we aimed to remain transparent about the hypothesis and preconceptions guiding this work. This project began with reviewing literature to identify important gaps in the self-compassion and perfectionism fields. In order to improve our findings' validity we aimed to reduce the likelihood of test-exhaustion and identified brief and valid scales of the different outcomes: self-compassion, perfectionism, anxiety, depression, and body image. The FMPS-B was chosen due to its brevity and good psychometric validity in English (Burgess et al., 2016). However, this brief version of the original FMPS was relatively new, and it was unclear if it performed best as a unidimensionally or as a two-factor model. The main strength of this validation study is its use of two statistical analyses which had previously resulted in inconsistent findings (Stoeber & Otto, 2008; Smith et al., 2015). Finally, using hermeneutic-phenomenology to explore perfectionism provided important nuance and insight through first-hand experiences of participants. This is especially important in order to nuance a predominantly quantitative research field and provide insight as to how individuals with perfectionism describe the development of perfectionistic tendencies and their relationships to others. This is especially important because research shows conflict between the reported ambivalence of individuals with perfectionism toward change, and research indicating that perfectionism is maladaptive due to its association to mental health problems.

There are several limitations to this project as well. Overarching for all three studies, is the question of generalizability of this predominantly female student sample in Western Norway to other populations. Research participants in a majority of studies are students from Western cultures and may not be representative of all individuals.

This means that our findings should ideally be replicated among many different populations, in different cultures, with more men, but also with different clinical samples.

There are also some notable discussion points in these findings of the effects of a short self-compassion intervention on evaluative concerns and strivings. First, participants who signed up for the study were individuals who were interested in change, and therefore not necessarily a representative reflection of all individuals with perfectionism. In addition, there were significant differences in baseline levels of self-compassion between the group which completed the intervention and those who dropped out. Those who dropped out had lower levels of self-compassion. Although the intervention targeted some of the difficulties that individuals can encounter when working on increasing self-compassion, such as backdraft and fear of self-compassion, the dropout indicate that perhaps even more targeted focus on fear of self-compassion and backdraft may be necessary for individuals with low baseline self-compassion. Interestingly, baseline differences were not seen in any other baseline measure for mental health outcomes or perfectionism among those who completed and dropped out.

In addition, findings from the qualitative study on individuals' experiences of how painful events have shaped how they relate to others may also not pertain exclusively to individuals with perfectionistic tendencies. These first-hand accounts only explored experiences of those who scored high on perfectionistic tendencies overall, including both strivings and evaluative concerns. Other issues which effect generalizability are social desirability, and that individuals who signed up for this research projects are motivated to change.

4.3 Implications for practice

The most prominent findings of this doctoral project on clinical practice, are that perfectionism can be reduced through self-compassion courses, that these changes

can reach significance over a short span of time (three weeks), and that these changes may affect evaluative concerns and strivings differently.

However, although our final study shows that perfectionism can be significantly reduced through a brief and targeted self-compassion intervention, it is important to view these results within the mixed-methods framework which has also highlighted subjective experiences of individuals with perfectionism. Most prominently, the experienced protective function perfectionistic tendencies have served individuals after dramatic life events. A study by Slaney and Ashby (1996) reports that individuals with perfectionism may be ambivalent or even unwilling to change perfectionistic tendencies, even when they find these distressing, indicating that some individuals with perfectionism may not want to change perfectionistic tendencies despite acknowledging perfectionisms' downsides. This is an important distinction because it emphasizes that although perfectionism is associated with negative mental health outcomes, there is a conflict between motivation to change perfectionistic tendencies reported by studies and clinicians working in the clinical field compared to the individuals who live with and have perfectionistic tendencies.

This opens for interesting ethical debate, because if therapists and patients have conflicting goals and interest in what should be subject to change in the therapy room, and this is not solved in collaboration, who ultimately has the right to define what the problem and correct solution to said problem is? Considering the implications of maladaptive perfectionism on help-seeking, development of mental health problems, comorbidity, the therapeutic relationship, and ultimately outcome, there are many reasons for both health care systems and clinicians to have a stake in decreasing perfectionism.

In addition, as in many other helping professions, psychologists, in line with doctors, are considered experts and naturally represent authority figures with special knowledge as to what constitutes "helping" an individual. This disproportionately hierarchical relationship increases the vulnerability of patient's expression of needs and whether these are met when they conflict with that of the clinicians' or mental

health systems'. This makes it ever more important to consider and understand the perspectives of the individuals who have high perfectionistic tendencies. In addition, as studies indicate that the negative relationship between perfectionism treatment outcome is mediated by failure to develop a strong therapeutic alliance, working with individuals who have perfectionism may be particularly difficult or sensitive work for therapists due to countertransference, and therefore increases the responsibility on clinicians to have more self-awareness and reflection (Hewitt et al., 2017).

4.4 Implications for future research

There are several important directions for future research in both the self-compassion field and perfectionism field. There is a need for more randomized control trials of self-compassion interventions, especially with clinical samples. These studies could also study "ideal dosage", or necessary length of interventions in order to see significant changes in both general populations, but also investigate if different clinical populations benefit from these interventions and if they require different intervention lengths and focus.

We also need more studies on the topic of whether self-compassion interventions may affect strivings and evaluative concerns differently. The present results suggested that perfectionistic strivings might not be as impacted by a self-compassion intervention as evaluative concerns, but this tentative result needs to be replicated in further studies.

In addition to identifying mental health factors which self-compassion can improve, and how long interventions should last in different populations, there is also a need for more transparency and detail of methods which were used in self-compassion intervention studies. This is especially important in today's current replication crisis (Maxwell et al., 2015) and in a growing field with increasing numbers of self-compassion interventions. Detailing which intervention components were used, for example, in supplementary materials, would allow for other research groups to test and replicate existing findings.

In addition, future studies may also contribute to the field by identifying potential mediators and moderators between perfectionism, self-compassion and mental health outcomes. For example, which subfactors of self-compassion contribute to changes in perfectionism. It remains unclear how self-compassion acts as a mechanism of change for various mental health conditions or maladaptive perfectionism. However, research has identified that certain subscales of self-compassion are more affected by self-compassion interventions, and may account more for the observed treatment responses. For example, Ferrari and colleagues (2019) found that self-compassion interventions seemed to affect the subscale over-identification more than they affected the other five subfactors in the self-compassion scale: self-judgment, self-kindness, mindfulness, common humanity and isolation. The authors discuss that possible mechanisms of change from self-compassion interventions may include meditation, emotional regulation, greater self-regulation, physiological changes such as regulated heart rate, enhanced social connection, and cognitive mechanisms such as advanced reappraisal skills core to CBT. Other potential important variables include social psychological variables, expectation-influencing variables, and common moderators such as religion, gender, age, culture, and fear of compassion.

5. Conclusion

This thesis summarized three studies which made up this doctoral project. Each study contributed to the field of perfectionism, and one of which investigated the effects of self-compassion on perfectionism. Although the studies varied in methodology by posing questions rooted in different theoretical backgrounds, they also complimented each other by providing different perspectives on the same phenomenon. The lens with which we observed perfectionism shifted from psychometrical construct validity to first-person experiences and finally to measuring self-reported changes over time. This resulted in guiding how we measure and analyze perfectionism to a two-factor scale which differentiated evaluative concerns from strivings. Followed by a hermeneutic-phenomenological exploration of perfectionistic individuals' firsthand experiences and how they understand difficult experiences have affected them in

relationships. This study nuanced our understanding of the function of independence, responsibility, exaggerated self-criticism, self-reliance, and both physical and social distancing from others, concepts central to our understanding of perfectionism. Finally, we investigated the effects of a self-compassion intervention on perfectionism and mental health and found that maladaptive perfectionism in addition to depression, anxiety, and body image can be improved significantly whilst adaptive perfectionism reduces but to a lesser extent.

Combining the three studies, they have each contributed to an understanding of perfectionism and self-compassion. The suggestion that perfectionism might consist of at least two parts, was confirmed in the first study. The suggestion that one of these parts, perfectionistic strivings, might be considered adaptive while evaluative concerns was less adaptive, was modified in the second paper, as most respondents high on perfectionism discussed how their perfectionistic tendencies might be grounded in a feeling of a need to manage on their own, a belief that other people could not be trusted to take responsibility, indicating that this belief or way of being is experienced as a protective factor from pain and others. The final paper suggested that evaluative concerns may be more malleable than perfectionistic strivings after a short self-compassion intervention. This might mean that self-compassion may help students become less fearful of other's evaluations, but only slightly reduce perfectionistic strivings.

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The Psychometric Properties of the Frost Multidimensional Perfectionism Scale – Brief

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Previous psychometric analyses of the Frost Multidimensional Perfectionism Scale and the abbreviated version (FMPS–Brief) have resulted in inconsistent findings regarding the scale's bidimensionality or unidimensionality. Different studies evaluating the scale with different statistical analyses and comparative samples report different results and recommendations. This study assessed the FMPS-B's psychometric properties by conducting both confirmatory factor analysis (CFA) and pure bifactor modeling in order to address previous findings and guide future use of the scale. The results indicate that the two-factor model is the best fit. Going forward, the FMPS-B's subfactors "strivings" and "evaluative concerns" may be studied separately. Implications for future research and challenges in bifactor modeling are discussed.

Keywords: perfectionism, FMPS-B, strivings, evaluative concerns, validation, bifactor modeling

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INTRODUCTION

Perfectionism is reportedly on the rise both in the United States and Europe and receiving increasing attention worldwide (Curran and Hill, 2019; Smith et al., 2019). In order to research this phenomenon, it is crucial to have reliable, valid, and effective tools to measure perfectionism. It is important to note that the slight differences in which we operationalize and measure perfectionism today can result in research on different but related constructs (Hewitt et al., 2003; Shafran et al., 2003). Although there currently is no guiding definition of perfectionism, it is often defined as consisting of unrealistically high expectations and overly critical self-evaluations (Frost et al., 1990). Researchers also suggest perfectionism may be a transdiagnostic process, central to increasing individuals' vulnerability to and maintenance of serious mental health problems and an important predictor of treatment outcome (Egan et al., 2011). The concept "perfectionism" has been around for a long time both as a layman term and in the literature and has been repeatedly reconceptualized as a unidimensional construct, two-dimensional construct, or multidimensional construct.

In the early 1990s, two identically named scales were developed by Frost et al., 1990 [Multidimensional Perfectionism Scale (FMPS)], and closely followed by Hewitt and Flett (1991) [Multidimensional Perfectionism Scale (MPS)]. Frost et al. (1990) defined perfectionism as "setting of excessively high standards for performance accompanied by overly critical self-evaluation" and first identified six dimensions in the 35-item scale: "concern over mistakes," "personal standards," "parental expectations," "parental criticism," "doubts about actions," and "organization." However, because "organizations" loose correlations to the other subscales, the authors recommend that it not be included in calculating total scores (Frost et al., 1990).

Both the FMPS and MPS provided 30 years of research tracking changes in perfectionism. Authors Curran and Hill (2019) have observed trends in perfectionism between 1989 and 2016

using the MPS and found that young adults are harder on themselves and report more societal pressures and expectations than previous generations. Similarly, Smith et al. (2019) observed in a meta-analysis of studies including both MPS and FMPS that perfectionism has increased the past 25 years. Perfectionism is also receiving increasing attention in Scandinavia where generation Z is colloquially referred to as the "the generation of performance anxiety" (Madsen, 2018). Because of the rise in perfectionism over time and its suggested role in maintaining serious mental health problems, interventions are needed in order to address maladaptive perfectionism (Egan et al., 2011; Curran and Hill, 2019). Both American and Norwegian longitudinal studies report a rise in mental health problems among young adults (Knapstad et al., 2018; Twenge et al., 2019). The 2018 Norwegian Students' Health and Wellbeing Study found that 29% of students report serious mental health problems compared to 16% only 8 years prior, and 47% of students report they always/usually set very high goals for themselves (Knapstad et al., 2018). The success and implications of decreasing maladaptive perfectionism are largely unknown but could, if proven effective, have important implications for public mental health and treatment outcomes (Egan et al., 2011). Hence, a reliable instrument of perfectionism is needed in order to measure changes in perfectionism, to understand and differentiate between adaptive and maladaptive perfectionism, and to increase our knowledge of how these changes are related to changes in mental health.

Since the development of the first two multidimensional perfectionism scales in the 1990s, the dimensions have been repeatedly psychometrically tested. Through the use of factor analysis, Stoeber and Otto (2006) combined different subscales of different measures, including the FMPS, MPS, Perfectionism Inventory (Hill et al., 2004), Perfectionism Questionnaire (Rhéaume et al., 1995), and Almost Perfect Scale – Revised (Slaney et al., 2001), into two latent dimensions named "perfectionistic strivings" and "perfectionistic concerns." The FMPS subscales "doubts about actions" and "concerns over mistakes" were included in the dimension coined "perfectionistic concerns," whereas "perfectionistic strivings" includes the FMPS subscale "personal standards." The authors argue that the FMPS subscales "organization," "parental expectation," and "parental criticism" could be disregarded for conceptualization of "perfectionistic strivings" and "perfectionistic concerns" (Stoeber and Otto, 2006). "Perfectionistic concerns" is often referred to as maladaptive or unhealthy perfectionism in the literature, highlighting its association to a multitude of negative mental health outcomes. Perfectionistic concerns have been linked to anxiety disorders, stress, depression, eating disorders, and obsessive–compulsive disorder (Egan et al., 2011). In contrast, "perfectionistic strivings" more often correlates with positive mental health outcomes (Stoeber and Otto, 2006). However, whether perfectionistic strivings is adaptive is debated. According to Egan et al. (2011), perfectionistic striving is also elevated in clinical samples. Stoeber and Otto (2006) argue striving correlations to positive mental health outcomes become most consistently evident after partialing out the overlap between strivings and evaluative concerns. However, Smith and Saklofske (2017) utilized bifactor modeling and call into question the adaptiveness of strivings because of evidence that specific factor scores for the two dimensions are unreliable and therefore question the practice of removing their general variance, as Stoeber and Otto (2006) suggest. In 2016, FMPS–Brief (FMPS-B) was further developed to represent these two core constructs: evaluative concerns and strivings (Burgess et al., 2016). A notable strength in this study, the support for the FMPS-B, was found utilizing several different samples using a confirmatory factor analysis (CFA), and the authors eliminated items that have historically performed inconsistently, for example, items with cross-loadings (Frost et al., 1990; Burgess et al., 2016).

In summary, because of different factor loadings in different analyses, such as evidence of a two-factor model through CFA and evidence of a stronger general factor in bifactor modeling, the aim of this study is to translate the FMPS-B and examine the psychometric properties of the subfactors, perfectionistic strivings, and concerns. This was accomplished by conducting a pure exploratory bifactor analysis and CFA in a Norwegian sample of university students.

MATERIALS AND METHODS

Participants

The study sample consists of university students (N = 383) attending the University of Bergen and Norwegian School of Economics and Business Administration in the western part of Norway. The mean age of the participants was 27 (range = 19–65) years. The sample consists of 20.9% men and 78.9% women. Information on the study was distributed through various university and faculty websites and/or faculty newsletters.

Materials

Frost Multidimensional Perfectionism Scale – Brief

Frost Multidimensional Perfectionism Scale – Brief consists of a total of eight questions, with each subscale comprising four items (**Table 1**). The suggested subscales are called evaluative concerns and strivings. The items are scored on a Likert scale from 1 (strongly disagree) to 5 (strongly agree) for a minimum total score of 8 and a maximum of 40 and minimum subscale score of 4–20. Higher scores indicate more perfectionistic tendencies. The Cronbach's α coefficient shows good internal consistency (α = 0.83). The subscale evaluative concerns' mean was 13.30 (SD = 3.88), and that of the subscale strivings was 13.49 (SD = 3.92) (see **Table 2** for descriptive statistics).

State–Trait Anxiety Inventory

Symptoms of anxiety were measured using the 20-item trait anxiety subscale of the State–Trait Anxiety Inventory (STAI; Spielberger et al., 1983). Respondents indicate general feelings on a Likert scale from 1 (almost never) to 4 (almost always). The scale is validated in a Norwegian sample (Håseth et al., 1990). In our sample, the STAI had a Cronbach's α = 0.90 (mean = 53.76, SD = 11.13).

TABLE 1 | FMPS-B subscales and items.

Evaluative concerns

1. If I fail at work/school, I am a failure as a person
3. If someone does a task at work/school better than me, then I feel like I failed at the whole task
6. If I do not do well all the time, people will not respect me
8. The fewer mistakes I make, the more people will like me

Strivings

2. I set higher goals for myself than most people
4. I have extremely high goals
5. Other people seem to accept lower standards from themselves than I do
7. I expect higher performance in my daily tasks than most people

Itemized in order of appearance in original scale. Original FMPS items: 9, 12, 13, 19, 24, 25, 30, and 34.

Major Depression Inventory

The 13-item Major Depression Inventory (MDI) measures symptoms of depression on a Likert scale from 1 (not at all) to 6 (all of the time) (Bech et al., 2001). Respondents are asked to indicate the presence of symptoms over the last 2 weeks. Two items consist of pairs, in which the highest scores were included for statistical analysis. The scale is validated in a Danish clinical sample (Olsen et al., 2003). In this sample, the MDI had a Cronbach's $\alpha = 0.88$ (mean = 21.44, SD = 10.60).

Procedure

The study was approved by the Norwegian Regional Committees for Medical and Health Research Ethics-North 2015/2211. We asked two universities and five faculties to aid in recruiting participants online. These institutions distributed information on the study on official faculty/university websites, Facebook pages, newsletters, and by e-mail. Students were provided with brief information on the study by their representative faculties followed by a link. The link immediately provided students with informed consent forms in SurveyXact (2018). In order to move past the informed consent form and fill out the questionnaire, students had to confirm they had read the informed consent and wanted to participate in the study. The data were collected at the beginning of three semesters from the spring of 2018 to spring of 2019. The numbers of questionnaires distributed by e-mail each semester were 827, 525, and 1,029, respectively. The link was active for 2–7 days, upon which it was deactivated, and students were thanked for their interest in participating and provided with information on participation in future semesters, until the last data collection. As an incentive for participation, students who filled out the questionnaire entered our lottery to win two movie tickets. The first author, who is fluent in both English and Norwegian, translated the FMPS. The scale was then back-translated by a second bilingual individual in order to confirm that the translation reflected the measure's original intended meaning as outlined by the World Health Organization's translation process guidelines for forward translation and back-translation (World Health Organization [WHO], 2020).

Statistical Analysis

Four hundred twenty-three participants began filling out the survey; 34 participants were excluded because of no values in the FMPS, leaving a remaining 391 observations. Of these, eight were excluded because of greater than 37.5% missing data. These remaining missing values, which made up 0.98% of the data, were imputed through multiple imputation by chained equations using the mice package in R (Buuren and Groothuis-Oudshoorn, 2011; R Core Team, 2016). Basic descriptive statistics were conducted to evaluate each item for skew and kurtosis, with scores between −2 and +2 considered acceptable indicators of normal distribution (George, 2011). We utilized the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and Bartlett test of sphericity in order to inspect whether the data were appropriate for conducting a factor analysis. To evaluate the presence of unidimensionality in the FMPS-B, we conducted a pure exploratory bifactor analysis applying the program FACTOR (Lorenzo-Seva and Ferrando, 2013, 2019). We estimated the closeness to unidimensionality (Ferrando and Lorenzo-Seva, 2017) through values of unidimensional congruence (UniCo) and explained common variance (ECV). UniCo values greater than 0.95 and ECV values greater than 0.85 suggest that the data can be treated as essentially unidimensional. Furthermore, we applied a CFA in order to evaluate the two-factor structure of the eight-item FMPS-B, as suggested by Burgess et al. (2016). The CFA analysis was conducted with robust maximum likelihood estimation, using the "lavaan" package in R (Rosseel, 2011; R Core Team, 2016). For comparison, we applied the same fit criteria as Burgess et al. (2016). Thus, the comparative fit index (CFI; Bentler, 1990) and the root mean square error of approximation (RMSEA; Steiger, 1990) were used as indicators of model fit, with CFI values greater than 0.90 and 0.95 and RMSEA

TABLE 2 | Descriptive statistics of FMPS-B items.

Item	*N*	Mean	SD	Median	Trimmed	Mad	Min	Max	Skew	Kurtosis	SE
1	383	3.76	1.16	4	3.90	1.48	1	5	−0.96	0.07	0.06
2	383	3.61	1.15	4	3.70	1.48	1	5	−0.59	−0.49	0.06
3	383	3.15	1.26	4	3.18	1.48	1	5	−0.27	−1.14	0.06
4	383	3.37	1.25	4	3.44	1.48	1	5	−0.37	−0.98	0.06
5	383	3.20	1.15	3	3.22	1.48	1	5	−0.19	−0.83	0.06
6	383	3.13	1.27	3	3.16	1.48	1	5	−0.28	−1.13	0.06
7	383	3.36	1.14	4	3.43	1.48	1	5	−0.44	−0.51	0.06
8	383	3.27	1.25	4	3.34	1.48	1	5	−0.39	−0.95	0.06

TABLE 3 | Exploratory bifactor model: item-level closeness to unidimensionality.

Item	I-UniCo	BC bootstrap 95% CI	I-ECV	BC bootstrap 95% CI
Item 1	0.77	(0.16–0.99)	0.52	(0.01–3.15)
Item 2	0.22	(0.00–0.63)	0.18	(0.00–1.95)
Item 3	**0.97**	(0.37–1.00)	0.81	(0.01–1.47)
Item 4	0.60	(0.04–0.98)	0.41	(0.01–6.46)
Item 5	0.80	(0.19–1.00)	0.57	(0.01–3.09)
Item 6	0.68	(0.25–0.99)	0.46	(0.02–4.20)
Item 7	**0.95**	(0.67–1.00)	0.75	(0.36–4.83)
Item 8	0.26	(0.01–0.78)	0.20	(0.00–2.22)

A value of UniCo (Unidimensional Congruence) and I-Unico (Item Unidimensional Congruence) larger than 0.95 suggests that data can be treated as essentially unidimensional. A value of ECV (explained common variance) and I-ECV (item explained common variance) larger than 0.85 suggests that data can be treated as essentially unidimensional. UniCo and ECV loading greater than 0.95 and 0.85, respectively, are in bold font.

TABLE 4 | Rotated loading matrix in exploratory bifactor model.

Item	Factor strivings	Factor evaluative concerns	*G* factor
1	−0.12	**0.44**	**0.48**
2	**0.85**	0.20	**0.40**
3	−0.05	0.27	**0.57**
4	**0.61**	0.26	**0.53**
5	**0.51**	−0.01	**0.59**
6	−0.14	**0.62**	**0.59**
7	**0.44**	−0.04	**0.77**
8	−0.11	**0.75**	**0.39**

Factor loading greater than 0.30 are in bold font.

values less than 0.10 and 0.05, indicating good and excellent fit, respectively (Kline, 2005).

Informed by theory and previous research, we evaluated the convergent validity of the FMPS-B by analyzing both subscales' Pearson correlations to measures of depression (MDI; Bech et al., 2001) and anxiety (STAI; Spielberger et al., 1983). Of the original 383 participants, 355 completed both the MDI and STAI and were included in this analysis. Historically, evaluative concerns are expected to correlate statistically significantly to both anxiety and depression. The subscale strivings are expected to have a weaker correlation or none.

RESULTS

The KMO measure of sampling adequacy suggests that data seem appropriate for factor analysis [KMO = 0.80, confidence interval (CI) = 0.78–0.85]. Bartlett test of sphericity suggests that there is sufficient significant correlation in the data for factor analysis [$\chi^2(28) = 1163.83$, $p < 0.001$].

The pure exploratory bifactor analysis suggests that the FMPS-B does not perform as a unidimensional instrument. The overall unidimensional congruence in the FMPS-B is less than 0.95 (UniCo = 0.66, BC bootstrap 95% CI = 0.54–0.73). The value of ECV is less than 0.85 (ECV = 0.46, BC bootstrap 95% CI = 0.03–0.72).

However, on an item level, items 3 and 7 (respectively) have item i-UniCo values greater than 0.95. No items have i-ECV values greater than 0.85 (**Table 3**). In addition, all items load significantly on the G factor (0.30) in the bifactor model rotated loading matrix, and item 3 only loads significantly on the G factor and not on any of the subfactors (**Table 4**).

Overall, the pure bifactor exploratory analysis indicates that the unidimensional model is not a good fit despite some unidimensionality on item level. The CFA indicates that the two-factor model suggested by Burgess et al. (2016) has a good to excellent fit (CFI = 0.94; RMSEA index = 0.09, standardized root mean square residual (SRMR) = 0.07) (**Table 5**).

Evaluative concerns correlate significantly to both measures of anxiety [$r(353) = 0.53$, $p < 0.01$] and depression [$r(353) = 0.42$, $p < 0.01$], whereas striving has a weak correlation to anxiety [$r(353) = 0.14$, $p < 0.01$] and does not correlate significantly to depression. This is also consistent with previous findings (**Table 6**).

DISCUSSION

The primary aim of this study was to evaluate the fit of the unidimensional and two-factor model of the FMPS-B using a pure bifactor analysis and a CFA in a Norwegian sample due to previous mixed findings. Findings from the exploratory bifactor analysis indicate that two of the eight items perform unidimensionally, and all items from the FMPS-B load on a

TABLE 5 | Two-factor loading in confirmatory factor analysis.

	Estimate	Std. err	*z* value	*P*(>|*z*|)	Std. lv	Std. all
Latent variables						
Evaluative concerns						
mps 1	1.00			0.74	0.64	
mps 3	0.95	0.11	8.97	0.00	0.70	0.56
mps 6	1.40	0.12	11.31	0.00	1.03	0.82
mps 8	1.26	0.12	10.99	0.00	0.93	0.74
Strivings						
mps 2	1.00			0.94	0.82	
mps 4	1.05	0.07	15.52	0.00	0.98	0.79
mps 5	0.87	0.06	13.88	0.00	0.81	0.71
mps 7	0.92	0.06	14.93	0.00	0.86	0.76
Covariances						
Evaluative concerns						
Strivings	0.23	0.05	4.93	0.00	0.34	0.34

TABLE 6 | Correlations of factor strivings and evaluative concerns with measures of anxiety and depression.

	Factor strivings	Factor evaluative concerns
Anxiety	0.14*	0.53*
Depression	0.06	0.42*

$^*p < 0.01$.

general factor, as previously indicated by Smith and Saklofske (2017). However, the general factor is weak in comparison to the specific subfactors. Thus, the results of the pure exploratory bifactor analysis do not support perfectionism as measured by the FMPS-B as unidimensional, that is, the use of the total sum score of the FMPS-B. Smith and Saklofske (2017) also conducted both CFA and bifactor analysis on three combined samples of the MPS, original FMPS, and APS-R. The authors compared goodness of fit and chose the bifactor with a strong general factor model as the best representation of perfectionism (Smith and Saklofske, 2017). However, a concern in bifactor modeling is "overfitting" due to capturing of unwanted noise and bifactor models' propensity to fit even random patterns (Bonifay et al., 2017). As a result, authors warn not to adopt models based primarily on which fit better (Murray and Johnson, 2013; Bornovalova et al., 2020). In addition, one would expect that pooling items from several different instruments together in one analysis increases the G factor relative to the subgroups. This is because there will be several items that overlap in content and also a propensity of item cross-loading to different subgroups when analyzing multiples scales simultaneously. However, the bifactor analysis forces the items into orthogonal solutions/subgroups, relative to each other. Thus, in a situation with item cross-loadings, the G factor will be stronger because of this misfit between bifactor model restrictions and item variance (Bornovalova et al., 2020). In our view, this is one explanation as to why Smith and Saklofske (2017) find a strong G factor, whereas we do not. As stated earlier, when the FMPS-B was developed, items showing a pattern of cross loadings were explicitly removed. Thus, in our situation, there is no conflict between the orthogonal bifactor restriction and the item variances within the scale. As such, our results replicate the good to excellent fit Burgess et al. (2016) found for their two-factor model consisting of evaluative concerns and strivings.

At the item level, we observed that one item (item 3) loaded only on the G factor and not on any subgroups. In order to explain this, we must take a closer look at the item and factor content. The evaluative concerns subfactor consists of a total of four items. Three of these questions, item 1, 6, and 8, measure the extent to which an individual generalizes failure/mistakes to their social or self-worth, that is, "If I fail at work/school, I am a failure as a person." Two of these items, 6 and 8, are formed to measure the same desire, to avoid mistakes, but distinguish themselves from each other by fear-based versus reward motivation. Thus, this last item, 3, is thematically different from the other three in that it does not measure the extent to which the individual experiences his/her worth to be affected by lack of perfection: "If someone does a task at work/school better than me, then I feel like I failed at the whole task." Instead, the item generalizes lesser achievement to failure and evaluates an interesting competitive or comparative aspect of perfection motivation. This is the only item that in our analysis loads significantly only on the general factor and not the specific factors.

While the FMPS-B performs well as a two-factor measurement of the subfactors strivings and evaluative concerns in perfectionism, there are two items that perform unidimensionally at the item level. These items distinguish themselves in being thematically different from the other subgroup items, in generalizing lesser achievement to failure, and more specific, in comparing ones' performance in one's daily tasks (item 30). Shafran et al. (2002), who coined "clinical" perfectionism, argue the multidimensional perfectionism understanding may be too broad and does not reflect the most critical aspects of perfectionism. However, neither of these items deviates from today's core conceptualization of perfectionism of unrealistically high expectations and negative self-evaluations.

The FMPS-B shows good internal consistency in a Norwegian sample. The subscale strivings performs consistently with previous samples, whereas evaluative concerns' mean is higher (mean = 13.30, SD = 3.88) than reported in Burgess et al. (2016) samples (community mean = 9.99, SD = 4.02; clinical mean = 11.89, SD = 4.10). This slight difference may indicate, as previous longitudinal studies have reported, that perfectionism is increasing among young adults. However, it is impossible to draw conclusions on whether these differences in mean evaluative concerns scores from earlier samples reflect an increase over time or differences in populations. The FMPS-B also exhibits good convergent validity in this Norwegian sample. The subscale evaluative concerns correlates significantly to symptoms of anxiety and depression, as expected from previous literature. Research highlights evaluative concerns' maladaptive role in mental health, whereas the role of strivings is still debated. Striving is more often linked to positive mental health; however, striving is also found to be elevated in clinical samples (Egan et al., 2011). In this sample, strivings had only a weak correlation to anxiety.

STRENGTHS AND LIMITATIONS

Findings from this study are limited to the FMPS-B. Other limitations include that the data consist entirely of self-report. Participants consist of a large student population in the Western part of Norway, this homogeneity may limit generalizability to other populations. The strengths of this study are a large sample for sufficient statistical power, sound methodology, including an analysis of two different statistical approaches that have previously resulted in inconsistent findings in the field. In addition, the use of a single scale allows for greater generalizability of our findings to the use of FMPS-B and greater usability for future longitudinal outcome studies that require a single, brief, and valid measurement of perfectionism to reduce dropout and test exhaustion when surveying participants repeatedly over time.

CONCLUSION

With the influx of research identifying the negative effects and correlations of perfectionism, there is increasing debate in regard to whether perfectionism can be adaptive and simultaneously if perfectionism is unidimensional or not. Most importantly, the field is currently in need of a unifying definition of perfectionism, which can contribute to more collaboration and greater generalizability of this growing field of research (Stoeber, 2018). The bifactor and the CFA taken together overall

support the two-factor model, indicating that the FMPS-B lends itself best to studying correlations and changes in evaluative concerns and strivings separately. Future research should employ longitudinal studies to investigate the malleability and adaptability of strivings and evaluative concerns and their mental health correlates. More longitudinal studies on these subfactors would increase our understanding of which factors contribute to the development of mental health problems and treatment resistance in individuals with perfectionism. Pinpointing these areas would have important clinical implications by guiding research to develop more fine-tuned and effective interventions for maladaptive perfectionism.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Norwegian Regional Committees for Medical and Health Research Ethics-North. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

VW, P-EB, and HM contributed to the conception and design of the study. VW collected the data, organized the database, and wrote the first draft of the manuscript. HM performed the statistical analyses with contribution from VW. HM and P-EB wrote the sections of the manuscript. All authors contributed to the manuscript revision, read, and approved the submitted version.

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Perfectionistic Individuals' Understanding of How Painful Experiences Have Shaped Their Relationship to Others

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Background: Perfectionism is increasing over time and associated with various mental health problems. Recent research indicates adverse childhood experiences may play a role in the development of perfectionism. In addition, perfectionism is marked by interpersonal problems with implications for treatment outcome.

Aim: This study aimed to fill an important gap in the predominantly quantitative literature field by exploring how individuals with perfectionism understand the relationship between painful experiences and how they relate to others.

Method: Nine individuals with perfectionism were interviewed using McAdam's life-story interview. Thematic analysis was used to analyze the interviews.

Results: Four themes emerged: "A childhood with big responsibilities," "I am still the responsible one," "Keeping others at a distance to protect the inner self," and "Achieving physical distance to get a fresh start." These themes are grouped into two overarching themes: "You can't always trust people" and "A distancing from others."

Conclusion: Findings highlight taking responsibility and social distancing serve an important function for perfectionistic individuals in response to painful relational events. We discuss how themes of control and agency impact individuals' relationship to mental health and turning toward others for help. The findings provide greater complexity to understanding perfectionism as a "barrier to treatment."

Keywords: perfectionism, perfectionistic, life story, narrative, qualitative, interpersonal relationships

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INTRODUCTION

How do perfectionistic individuals experience the impact of painful life experiences in their relationships with other people? Perfectionism is considered a multidimensional personality trait, which consists of having high standards, self-criticism, fears and doubts about one's actions, and concern of other's evaluation (Frost et al., 1990). Perfectionism is therefore cognitive, value-driven, relational, and closely tied to the individual's sense of self-worth. Hence, the trait perfectionism may, for many, be strongly connected to their experience of who they are, both to themselves and in relationship to others. Early relational experiences facilitate healthy psychological development by learning that one's basic needs will be met. And as people grow, individuals' self-identity continues to be cocreated by one's greater context, in comparison to others and based on feedback one receives throughout life. Early relational patterns shape and form later patterns

(Horney, 1945, 1950; Winnicott, 1960; Mikulincer et al., 2010). As a result, who we become, who we think we are, what story we tell about our life, and how we tell it are, to a large degree, shaped by the people around us and our relationships to them (McAdams, 2001). Evolutionary psychology theory suggests that by narrowing in on and learning from particularly negative experiences humans have adapted remained a part of the in-group and survived. However, negative events and stimuli receive in turn more attention (Baumeister et al., 2001). In response to particularly affect-laden events, individuals create scripts, which help them in predicting and similar events later in life, but also often build on overgeneralizations (Tomkins, 1991).

It is unclear why, but levels of perfectionism in our society have increased significantly in the last 30 years (Curran and Hill, 2019), at the same time as a growing body of research links perfectionism to a number of mental health problems, such as depression, anxiety, and eating disorders (Egan et al., 2011). There is a growing interest in understanding why and how perfectionism develops. Recent studies link perfectionism to adverse childhood experiences (ACEs), which include trauma, neglect, abuse, and family dysfunction (Chen et al., 2019). Two theories of perfectionism, the Perfectionism and Social Disconnection Model (Hewitt et al., 2017) and the Social Reaction Model of Perfectionism (Flett et al., 2002), posit that ACEs are an important factor in the development of perfectionism.

Perfectionism is a suggested transdiagnostic process in mental illness (Egan et al., 2011). In addition, perfectionism is theorized to be a barrier to treatment, and individuals with perfectionism may be less likely to seek help (Shannon et al., 2018). Individuals who score high on maladaptive perfectionism perceive less social support, hostility, and rejection and are less likely to experience relationship satisfaction (Habke and Flynn, 2002). Interpersonal difficulty appears to also affect patients with perfectionism in the therapy room, and less satisfying relationships among individuals with high pretreatment perfectionism predict poorer therapeutic outcome (Blatt and Zuroff, 2002). The negative relationship between perfectionism and treatment outcome is mediated by failure to develop stronger therapeutic alliances among perfectionistic patients (Zuroff et al., 2000). These findings may not be surprising as research especially highlights the importance of relational factors, called common factors, such as the therapeutic alliance, empathy, respect, and therapist's presence in psychological treatment (Wampold, 2013; Norcross and Lambert, 2018).

In order to improve access to and therapy outcome for this population, it is important to understand what individuals with perfectionism describe as difficulties in relating to others. The majority of research on perfectionism today is quantitative. As a result, the field can benefit from more qualitative studies, which can address how individuals who have perfectionistic tendencies experience and understand these processes. Some qualitative research has been conducted with individuals with perfectionism, which has highlighted marked interpersonal problems (Slaney and Ashby, 1996; Schuler, 2000; Rice et al., 2003; Merrell et al., 2011; Mackinnon et al., 2013; Farmer et al., 2017); however, to our knowledge, no study to date has focused primarily on interpersonal topics and how individuals make sense of important relational events in their life. In order to fill this important gap in the literature, this qualitative article will explore the following research question: How do highly perfectionistic individuals give meaning to the ways painful experiences shaped their relationships to others? We will convey the participants' own words to give meaning to their experience. Hence, this study aims at extracting experience-near themes of what the participants identify as important about emotionally challenging events in their life, their reflections about how these events have influenced their further life course, and how they conceptualize their relationships today.

MATERIALS AND METHODS

Participants

We recruited nine individuals, two men and seven women, aged 20–50 years, studying at five different faculties at the University of Bergen. Participants were recruited from a large sample (N = 388) of students who signed up for a self-compassion course and scored in the top 5% on the Norwegian translation of the Frost Multidimensional Perfectionism Scale-Brief (Frost et al., 1990; Burgess et al., 2016; Woodfin et al., 2020). In total, 10 individuals were invited to be interviewed, and nine agreed to participate. The e-mail invitation stated that we were interested in understanding how perfectionistic individuals tell their life story. Participants had no prior relationship to the interviewer, the first author, but were informed that she would also be holding a course in self-compassion, which they had signed up for. Participants were not provided any incentives for participating in the interview; however, participants entered a lottery to win two movie tickets when filling out the survey questionnaire. The interviewer informed the participants that their responses were anonymous and confidential. Participants were informed that participation in the course was not contingent upon participating in the interview and that they could discontinue their participation from the study at any point prior to publication of the article.

Procedure

All participants were interviewed in an office at the Faculty of Psychology at the University of Bergen. We used a semistructured life-story interview developed by McAdams (McAdams, 2008) which was translated to Norwegian. The aim of these interviews was to gain a greater understanding of perfectionism through the lived experiences and reflections of the participants. Interviews varied in length, between 120 and 360 min. McAdams life-story interview first prompts interviewees to give a brief 20-min synopsis of their life divided into chapters, emphasizing how they moved from one chapter of their life to another. Thereafter, participants are asked to identify key life events in each of the following categories: a high point, low point, turning point, high point in childhood, low point in childhood, main life challenge, primary health challenge, loss of an important person, biggest regret or failure, a spiritual moment, and moment of wisdom. Participants are then asked about their future projects, plans, dreams, hopes, and their beliefs on spirituality, politics, morals,

ethics, and values. Finally, participants are asked to identify a single most important theme of their life. The interview is semistructured and suggested follow-up questions attempt to ask participants to identify a single scene with as much detail as possible: when and what happened, who was there, how did you feel, and what did you think. In addition, participants are prompted to reflect how they make sense of these scenes and what they think it says about them as a person or their life story.

Data Analysis

The aim of these interviews was to gain a greater understanding of perfectionism through the lived experiences of the participants. The study used a hermeneutic–phenomenological exploration, group coding, and analysis with the use of NVivo 12 (QSR International Pty Ltd., 2020) to identify key themes among students with high perfectionistic tendencies. A reflexive hermeneutic–phenomenological approach is the interpretive and explorative analysis of the lived experiences of participants that highlights both the roles of the researchers and informants on the process and results. Because the approach acknowledges the researchers' impact on the work, it is essential to be aware and transparent about the unavoidable influence the researcher has to data collection, the analysis, and the interpretation of such work (Finlay, 2002; Binder et al., 2012). The use of qualitative methodology allows for a broad bottom-up exploration of perfectionism. As outlined by Braun and Clarke (2019), the first step in the analytic process consisted of familiarizing ourselves with the data. Each interview was reread multiple times, and initial impressions were noted and discussed. We generated initial codes for the data. The research question evolved as a part of the analytic process, originally from how individuals with perfectionism make meaning and cope with life challenges, to more specifically how participants described negative events affected them relationally. In our initial coding, we identified key relational themes. Narrowing the research questions allowed us to highlight the most common themes and reduce the scope of the article and report more in-depth findings. The data were recoded to address this particular research question. We searched for themes and studied the relationship between codes for overlap and differences through virtual representations. Themes were then reviewed. Not all themes were relevant to the research question and some were thrown out, whereas, others were further refined. Finally, themes were named and summarized. In reporting the findings, we aimed to tell the stories of participants by highlighting not only the similarities but also differences and variation. Because the interview highlights the individual's lived experience, it emphasizes the participants' own accounts, self-reflection, and narrative in order to increase our understanding of how they themselves make sense of painful events in their lives and the effect these have had on how they relate to others.

Finlay (2002) describes reflexivity as the immediate, continuing, dynamic, and subjective self-awareness, which can turn the researchers' inherent subjectivity from a problem to an opportunity from which meaning is cocreated. The use of transparency and reflexivity increases a qualitative study's trustworthiness. The process of reflexive analysis is a part of every stage of the research process from the preresearch phase to data analysis. In our work, we used reflexivity to discuss how our background, preconceptions, and subjective perspectives affected the research. Both supervision and notes on personal responses and reactions were used as springboards for conversation on our impact on and role in the research process. Because the first author has a different cultural background, Polish, American, and German, than the participants, Scandinavian, we discussed how cultural norms and expectations could affect the first author's analysis. For example, cross-cultural communication can differ in emotional expression and the degree to which one values individualistic goals (Triandis and Gelfand, 2012). In order to increase her understanding of cultural differences, as opposed to differences in perfectionistic tendencies, the first author also conducted six life-story interviews with individuals who had scored in the bottom 5% of perfectionism. These six interviews provided a valuable contrast to the phenomenon which we aimed to study, while normalizing culturally specific expressions and experiences. Ultimately, these interviews increased our understanding of the results of the thematic analysis by providing a contextual reference point for perfectionism within a group of students living in Norway.

Researchers

The study was conducted within the Research Group for Clinical Psychology at the University of Bergen. The first author is a research fellow and psychologist with 6 years of clinical experience with training in self-compassion and mindfulness-based approaches. The second author is an associate professor in clinical psychology with 11 years of clinical experience and an interest in humanistic, experiential, existential, and relational approaches to psychotherapy. The third author is a professor in the Department of Clinical Psychology with 25 years of clinical experience with adults, adolescents, children, and families. His clinical approach is integrative, and he has training in mindfulness- and self-compassion approaches, emotion-focused therapy, and interpersonal/relational psychoanalytic therapy. All researchers have previous experience with qualitative research.

Ethical Considerations

The study was approved by the Regional Committee for Medical and Health Research Ethics (Region North). All interviewees were given pseudonyms, and identifying information was changed to preserve anonymity.

FINDINGS

It is important to note that all but one informant disclosed having been bullied, abused, neglected, or experienced significant losses during childhood, but how participants described they reacted to these painful relational experienced varied. Our findings identified two overarching themes: "You can't always trust people" and "A distancing from others." The first main theme, "You can't always trust people," describes participants' experiences of not being able to trust other people and touches on aspects of personal control through responsibility and independence. The overarching theme "A distancing from

TABLE 1 | Overarching themes of responsibility and distancing.

Overarching theme	You can't always trust people	A distancing from others
Subthemes	A childhood with big responsibilities	Keeping others at a distance to protect the inner self
	I am still the responsible one	Achieving physical distance to get a fresh start

others" describes participants' experiences of achieving both emotional and physical distance from other people who have or could hurt them (**Table 1**). Each main theme comprised two subthemes. "You can't always trust people" includes the subthemes "A childhood with big responsibility" and "I am still the responsible one." These subthemes are divided by their timeframe. While "A childhood with big responsibility" outlines participants' history, the subtheme "I am still the responsible one" encompasses how this sense of personal responsibility still affects them today. The overarching theme, "A distancing from others," is composed of "Keeping others at a distance to protect the inner self" and "Achieving physical distance to get a fresh start." While "Keeping others at a distance to protect the inner self" illustrates how participants have achieved or try to achieve an emotional distance from other people, "Achieving physical distance to get a fresh start" outlines the physical distance achieved by, e.g., moving or switching schools. In this study, we describe frequency of the categories in participants' accounts, where "all" refers to all participants, "most" refers to all but one, "many" refers to more than half, and "some" refers to less than half.

You Can't Always Trust People

All informants described dramatic relational life events in childhood. Many described how other people had failed or hurt them. Informants highlighted the importance of taking matters into one's own hands and becoming the responsible one because one cannot rely on others. All informants discussed responsibly in various areas of their lives. For some, this was especially important in their youth and current relationships, whereas others highlighted maintaining control over personal qualities that could be judged by others, such as mental health, appearance, or performance.

A Childhood With Big Responsibilities

The first theme describes informants' experiences of having to fend for themselves and be the responsible one at a young age. All interviewed informants described painful relational experiences in childhood. These painful experiences varied in degree and nature. Some informants discovered that caretakers were unstable or unaccountable, some experienced painful losses, whereas others found that peers could be unfair and even malicious. Most informants narrated their story with a strong sense of personal responsibility, as if they could have done more to affect their circumstances, even as children. For some, taking responsibility and being independent early on did not feel like a choice but a survival strategy. Some informants explained that these painful experiences resulted in a feeling of losing their sense of safety, something that has remained with them.

Like many informants, Agnes experienced a lot of stress as a child. For Agnes, it took the shape of a "lump" in her chest that she carried with her, "all difficult events and all, all my fear, and everything was like a big compact mass, I didn't know what it was, but I knew it had always been there."

Susie also recalled feeling a lot of responsibility early in life both at school and at home. She described how upon finding her dad unconscious at 12 years old; she was the only person in her family to attempt to save his life.

"Then I went upstairs, and then I saw my dad lying unconscious in bed. And my family was just standing there and like, just screaming at him from the sideline, and I jumped up on the bed and said we have to do CPR, he isn't breathing; we have to do something. That's when I started doing it…"

Dana describes feeling responsible for sexual abuse because it happened more than once: "I had a feeling, especially because it happened more than once, that there is something wrong with me, since I was chosen by two different men who have done this to me."

Several informants described that taking responsibility as a child did not feel like a choice, but something they were forced to do so that their life would not fall apart. Agnes explained, "I was always really afraid, that if I didn't take responsibility, everything would fall apart."

Like many informants, Thomas was also forced to be independent and fend for himself at a young age. He recalled how an angry stepmom inexplicably and without warning kicked him out as a teenager. The episode irreparably damaged his relationship with his parents and extended family.

"…she grabbed everything that was in my room and threw it out of my room (laughs). And that was hopeless and like… and incomprehensible, really. But what happened, and then I had to move in with my grandma. But what, what happened afterward, that was worse, really. Because then I lost contact with my dad, because she came up with stuff, things that weren't true, like… about me. That I… yeah, all sorts of things, that I hit her for example. That I smoked weed in my room and stuff. And all this embittered the whole family, so it wasn't just my dad, but aunt and uncles…"

Several informants highlighted how learning to fend for oneself went hand in hand with losing a sense of safety. Thomas recounted this when he described the upside and downside to being sent away to live at a hospital in the 60s when he was only 4 years old.

"The positive is that I became really independent at the time, like I had to manage alone. And, I think it has to do, I am good with people and stuff, I think it's so, I don't know if its connected, or if maybe it's something I just inherited, or something I just imagine maybe. At the same time as I believe that, really like, on the negative side, it really feels like uncertainty, yes, yes a lack of safety…"

Although Lilly described having a generally positive childhood, she shared the same feeling of fear at being left to fend for herself and a sense of losing safe boundaries upon

finding her dad sleeping next to a beer bottle. Lilly, like other informants, explained the feeling has stayed with her ever since.

"The feeling I had then, it's really weird, it stuck with me. Exactly as if I saw him as an alcoholic, as if something had happened to him, as if he had died. But he had just renovated and had a beer. At least that's what mom says happened. So sometimes I wonder what that means [. . . .] Mm. And what that says about me (laughs). I don't really know. But I've always been, I have always had a need for safe boundaries, and I didn't feel like I had those then. I felt a little as if. . . I had been left to fend for myself."

I Am Still the Responsible One

While the first theme highlighted informants' experiences of having had a childhood with a lot of responsibility, the second theme reflects participants' experiences of taking a lot of responsibility today. Many informants underlined the importance of taking responsibility moving forward after learning that other people cannot always be trusted. This personal responsibility is described as extending to many areas, most notably mental health and relationships. Some explain that you can only hold yourself accountable for your own happiness because that is the only thing you can control. Informants exemplified personal responsibility in relationships as taking responsibility for how you present yourself in affecting others judgments of you, to not let others down and thereby avoid losing them, being more critical of other people so not be hurt and treating others well to in turn be treated well.

Several informants underlined the importance of personal responsibility in mental health. Lilly explained that you yourself have the most power to affect any situation, including your mental health: "And it's incredibly fascinating, mental health, how it comes and goes. But at the end of the day, it's really just we, ourselves, who have the most influence."

Laila similarly discussed responsibility in mental health in terms of hard work. She summarized that everything is possible if you work hard. She explained you cannot blame your circumstances, only yourself.

". . . those who work hard. . . anything is possible. So every now and then, it's like, if I get depressed, or can't do something because of anxiety, I think it's my own fault and doesn't actually have anything to do with illness."

John was misdiagnosed with bipolar disorder, which had devastating consequences for his self-esteem, how he was later treated by health personnel, and his ability to trust. However, he explained that he primarily blamed himself for putting himself in that position: "I should have been more, I should have thought it through more before answering maybe, I should have presented things differently, or the *way* I talked was misinterpreted."

He also described not being more critical and getting help in the first place as one of his biggest regrets: ". . . that I wasn't more critical and, that I in a way, *allowed* myself, to seek help, that I didn't manage to normalize things for myself, and just accepted the answers I got and just, wasn't more critical."

Similarly to John, Dana described how important it is for her to also take responsibility for how others see her: ". . . there is so much that I can't control but there are things I can control: how good I am at a job, and how people see me. Which attributes people *see* that I have."

For Dana, taking responsibility was important to keep the relationships she had left after she lost both her parents at a young age. Out of fear of also losing her older brother, her early 20s revolved around taking responsibility for maintaining their inheritance, their family home. She described that because she was terrified of losing her brother, she became terrified of losing the house: ". . . I was the one the responsibility fell upon. So I was scared to death that I wouldn't be able to do it. I thought, I can't lose the house, I have to keep the house. Now everything is on my shoulders, I have to perform."

Thomas expanded and summarized this as: "You are the architect of your own fortune." And explained taking personal responsibility also extends to how you treat others because this in turn comes back to affect you: "You yourself are really important as a person, the protagonist in your own life, and if you care about those around you, you can also influence them, and that in turn can affect you."

A Distancing From Others

In "A distancing from others," informants describe how they have established distance, both physically and emotionally, from other people in order to protect themselves. By keeping other people at arm's length, they protect their inner self from re-experiencing relational pain. However, participants also describe that emotional and physical distance comes at a cost and describe how insulating oneself from intimacy can also hurt.

Keeping Others at a Distance to Protect the Inner Self

Many informants described learning that people can be unreliable, unstable, untrustworthy, and sometimes dangerous. These experiences taught many participants to emotionally distance themselves to keep people out, end relationships, or otherwise insulate their inner self from potential harm. In contrast to the second theme, "I am still the responsible one," in this third theme participants do acknowledge the power other people can have, but they outline their attempts to minimize the effect this can have on them. In this theme, participants share the various ways they achieve emotional distance from others in order to protect themselves. For some informants, it is difficult to make room for themselves in relationships out of fear of losing those important to them. A couple of informants described the difficulty in distinguishing their own needs from those of others. Many participants discussed the importance of boundaries in their relationships, in order to stay safe and make room for themselves: their needs, wants, and desires. Overarching for this theme is the shared experience, yet different ways in which informants keep others at a distance and protect themselves by not fully revealing who they are or what they need. By sequestering their inner self and creating emotional boundaries, some describe not only experiencing isolation, but also a sense of protection from being hurt, being taken advantage of, or losing oneself.

Boundaries of walking away were important for several informants for the sake of staying safe. Agnes described wishing

she had had the knowledge and power to walk away when she was experiencing emotional and physical abuse as a child.

"I think that it may be defined my self-image for a long time. But yeah, most of all I remember, I remember exactly what happened. And I had a flashback memory of everything. I remember I was so, like I was so scared, my entire body was like, yeah. Really tense and I felt like I was forced to receive the comment and just endure it because I had no sense of walking away."

For Laila, friendships in themselves felt unsafe because she learned her friends could move away and disappear, and she recalled the moment she realized she would rather have no friends than experience one more loss: "I have problems trusting people, I expect that everyone will disappear and stuff, and often that scene comes back then. That's when I realized that I had to quit, that friendship and stuff, friends disappear, no good things. Just… So there was a lot of sadness and frustration and a lot of fear."

Lilly described how she feels judged all the time, even by her doctor, so she tries to stay away.

"…I think that everyone is thinking something about me. And especially my doctor. If I time after time go on sick leave, that doctor thinks "what an idiot, can't you handle more than that[….] And then, then it's better to stay away, then you avoid that."

For Dana, it became important to not trust people, because she learned early on that her vulnerability could be used against her to bully her: "…it wasn't safe to be myself around people because you never knew what they would use against me or use to hurt me."

Dana described herself as alike the cats that she fosters, who do not trust people anymore because of the pain they have experienced: "I really see myself in these cats too, like scared, and hurt by something, don't trust people."

Dana described that there has been too much risk involved in letting people in. In addition to being able to hurt you or disappear, they might discover you are not good enough and reject you.

"…first and foremost I am afraid to open myself to others, to tie myself to others to stay, to be hurt again, or that I will lose people *again*. Mmm. Or that I'm not good enough, or if I'm not happy or smiling or positive, and the kind of person that people would like, that maybe people won't like me or want to be with me. That I always, that I always push people away has always been my fear, scared of, I have always tried to make myself strategies to not be hurt in any way."

Romantically she described how she has not allowed anyone to hurt her, because she has isolated herself or has broken off relationships before they got too serious, "…I think I have never, never opened myself up to be hurt."

Laila explained that her dad's inconsistent comings and goings made her question whether she was loved as a child. Like Dana, she found strategies to lessen the pain. Laila gave up hope: "the way I handle it now, I just stopped hoping really, I have stopped thinking he will change, that he will suddenly be ready to be a dad."

Katie described that it is difficult for others to read her and how she is feeling. She says she is protecting herself because she does not really trust her friends will stay her friends:

"It's a bit like, a defense mechanism that I have with friends and stuff because I think like, I always have it in my back of my mind that they don't really want me, and so I never manage to really trust them. And that's why I don't want to tell them or I don't want them to know things, in case they move on or don't want to be friends anymore. I don't want them to know things about me. I don't totally trust them."

A few informants described that not setting clearer boundaries and expectations was one of their biggest regrets because their needs were not met or prioritized when they should have been. Laila described, "I spent a lot of time regretting that I haven't been clearer with people about what I need, or what I deserve. That I could have been a little more demanding in a way. I regret that I kept going to that terrible therapist, because I knew it didn't really work."

Setting clearer boundaries to prioritize her own needs was also an important subject for Dana. When recounting her experiences, Dana took a lot of personal responsibility for not doing more to protect herself from abuse and unwanted sexual advances. She explained the spiral of how setting others' needs before her own resulted in her experiencing even lower self-worth and that her lack of boundaries affected her experienced value as a person.

"I'm not very good at setting boundaries, that's made it difficult for me to set boundaries, and that other people's needs have come before mine has then affected me by giving me really low self-esteem and self-image. When I've always ignored my own needs and my own boundaries [….] I didn't know what was normal in a way, between two people. I didn't feel like I could say no to certain people, and I just had to do the things I didn't want to do. And I couldn't set boundaries as I got older…. So it made me feel like I, yeah, like, that it was at the expense of my own worth, my self-worth as a person."

Thomas recalled that being isolated from most of his family due to his stepmom's lies made him more dependent on romantic relationship: "It's connected to, cling to a relationship, a relationship because I need safety."

Thomas explained how this dependence on his partner made it difficult to prioritize his own thoughts and desires. Always wondering what she was thinking or wanted him to do would overshadow his own needs.

"I became really… controlled, by what she thought and felt. And that then affected us on and on and on and in the end, right, it was like we were dependent on, another person that had to, 'What did *you* think?' Not like, what do I think and what do I feel like, but 'what would *you* like for me to do?' It was a bit like that in the end."

Some informants also recounted discovering that boundaries are important as someone who wants to help others. John described learning through his parents' separation and mental health problems that it is possible to take too much responsibility for others. He described how he, as a child, felt he played a very important role in his parent's separation and his mom's

hospitalization and how this pattern has followed him into other relationships.

"I assume a lot of, what shall I say, responsibility for wondering about other's situation. Or before, in a way, more than, more than a kid should, thinking, and being like 'mom isn't doing so well' and done with that. Not like, not like I should, as if I have some sort of central role in all of that. I don't, I didn't have one. I, I just take a lot, a lot of responsibility for other people's feelings. Like the two relationships I was in. The two break-ups, and friendships. I assume a lot of responsibility for feelings, it's not necessary."

He also described the importance of figuring out when you have given enough of yourself and setting boundaries in relation to people who are struggling.

"I feel like you have to in a way, set boundaries for how much you want to give of yourself to others. You can't carry other people's feelings, you can't. And I can't control or take responsibility for everything that happens with those around me. It's important to limit a little bit. To be selective of time."

Dana described how constantly learning to adapt to new people and new places when she moved made her a chameleon that lost touch with what she needed.

"I called myself a chameleon for many years, because I felt like I was really good at fitting in in new settings, but in the end it was like I couldn't… I was controlled by the outside settings more than finding out who I actually was and what I wanted."

For Paula, feeling like she was finally acting on her own accord and following her gut has been one of the most powerful moments of her life.

"It sounds a bit tragic, that it's one of the points that sticks out, out of all of them, like all, when I've won the lottery or, but.… I think, what it says about me, if you go in depth, it says that it's important to me to make decisions in my own way, in my own time."

Laila also described trying to strike a balance between her own needs and fulfilling expectations in order to make more room for what she needs: "So it has to do with, it has to do with finding a balance between taking care of oneself and at the same time like fulfilling expectations from others and myself."

Laila summarized the feeling of emotional distance from others: "I definitely have a consistent feeling of the world around me fitting together and people around me feeling community and at one with nature with meaning and purpose, and I instead exist on the side for myself."

Achieving Physical Distance to Get a Fresh Start

The final theme describes how informants achieved distance from difficult situations or relationships by moving on physically. Many informants described untenable situations that they could not remain in any longer and the need to achieve a fresh start through distance. They described being unable to tolerate a given situation out of loneliness, fear, pain, or being fed up. Many informants described that it is important, not only to cut emotional ties to establish distance, but at times also the necessity of getting away physically. They described moving, in several cases abroad, as an attempt of starting anew and leaving painful experiences and hardships behind. For some, this felt like a big turning point in their lives. However, there was a lot of variation in the extent to which participants experienced moving as successful. Several of the informants reflected that it is impossible to truly get away because the pain always catches up with you. Other informants point out that you can never truly shake the experience of not being good enough even if you change your life. However, some described successfully achieving physical distance or a sense of belonging abroad, but lament that they had to leave the distance behind and come back home to old struggles. A couple of informants planned on moving abroad again in order to start a new life.

Many informants described experiencing positive changes upon moving. Susie was able to see her home in a new light when she returned from travels abroad.

"I saw everything in a new light because I had lived in a really big place where I had seen; we had visited big cities abroad, and I had seen that the world is so much bigger than I had imagined. So before I thought that Bergen was a big city, but then I came back and I realized that Bergen is a really tiny city (laughs) [….] And it was like it didn't hit me before I got back and even when I.… I thought it was a pretty big city, it's just itty bitty, I don't understand that I never realized that this is a tiny valley with lots of houses (laughs)."

Katie also described moving several times to get away from home because it was frustrating and lonely to be the only person who cared about school.

"Where I come from is a tiny village, where almost nobody cares about school, not parents. Almost nobody has an education, so there's a lot of people who never finished high school. They don't care at all. I got so frustrated. This is important! (laughs) And nobody hears, nobody cares about school, nobody reads, nobody shows up to class, they don't show up, so that was a role I tried to push. […] It was frustrating. That's when I applied to go to high school in a different city."

She also described later moving abroad as a great experience, where she finally found likeminded friends and felt she belonged. For her, it was painful to have to come back.

"…it was a very turbulent school year, where I felt I didn't want to be in Norway any longer. I wasn't thriving there, it was nice abroad. So I really wanted to study abroad again also after high school. But then… it costs a couple million a year, the schools I want to go to, they don't offer stipends, you get extra stipends for those schools, but if you want to go to a top university it's how much of a stipend you get and how much extra stipend you get abroad. So I would've economically destroyed [my parents] if I had done it."

Laila described all the challenges she experienced when moving to live on her own for the first time. Nevertheless, she felt satisfied and independent despite all the small irritations. For her, living by herself represented her own health and being normal, like others.

"I remember the internet didn't work immediately, and I remember I was struggling to screw on a leg on an Ikea bed, and at the same time I was really like… content, felt that I was normal, it made sense that this is what I should be doing. So even those things that were irritating, like the internet not working, but now I am actually in a situation in my own studio apartment where the

internet doesn't work… that's something all students experience, that is how it's supposed to be.… I don't really know what it says about me. But maybe that I really have a need to function as well as others, that has been really important to me."

For John, it was also important to move out when he began high school because he had lost hope. Later moving out to join the military was a key turning point for John, where he could redefine himself and experience mastery. But he also reflected that despite this he did not manage to totally shake his insecurities: "…that's when I started doing really well in a way, but that self-consciousness stuck with me."

Dana described having moved abroad many times and how she tried to escape pain, which ultimately did not work.

"…my move was more based on, if I move to a different country I can escape all the painful feelings and in a way, reinvent myself, ehm, without that being a problem. But I realized quickly that it doesn't work like that, so I moved back home again with mom."

At the same time, Dana had plans to move abroad again soon to start a new life with a new partner.

"I'm going to move abroad to be with him, and establish myself there, and get a job and yeah. That's going to be the next chapter. Ehm, moving back abroad, and beginning, like continuing my life there. I feel like my life the last 15–20 years has consisted of one day at a time and not seeing any future. And being really like, locked inside, by all of these feelings and not getting anywhere, and now I feel like I'm beginning to break out! […] And I actually *have* to start the rest of my life."

Agnes similarly moved abroad in order to get away from difficulties back home.

"I had decided really early on that as soon as I could, I would get away from it all, from the city, from my family, and everything that had been. So I just moved abroad alone. And that was really important to me, I know it was really important for me to get distance to it all, and understand that I can be a person without all the things that were difficult for me. Without being stuck in that life pattern."

But Agnes also described that the past always ends up catching up to you.

"I've understood now that I wasn't done with all the old stuff. There was so many things that I handled then and there, and that I got help with then and there, but I never got help understanding what that had done to me as a person."

DISCUSSION

In discussing the findings, it is important to note that relational trauma in childhood played a large part in participants' understanding of how they related to others today. Winnicott's theory of development presents how the interaction between the environment and the child shapes an individual's mode of being, true and false self and authenticity (Winnicott, 1960). The true self is used by Winnicott to describe an authentic, spontaneous, sense of "feeling real" self, which is contrasted with the false self, which masks the true self to protect it. Although Winnicott (1960) also emphasizes the child's role in this interaction, he proposes that failures of both omission and commission of the parent cause reactions in a child, which can impede his or her ability to integrate his or her self. The participants in this study could often identify single significant moments when they lost a sense of trust or safety in their relationship to other people. Baumeister et al. (2001) describe that for evolutionary survival reasons, negative events have more valence and a larger impact on individuals than positive events. McAdams, the developer of the life-story interview, further divides how we tell these stories of hardships into two categories: redemptive or contaminated (32b). While redemptive stories highlight overcoming or the gains attained through adversary, contamination stories describe how negative events negatively impacted a previously good narrative (McAdams et al., 2001). In his affect-regulation theory, Tomkins (1991) further proposed that individuals create scripts in response to such affect-laden events. By comparing one affect-laden event with another affect-laden event, individuals attempt to predict and respond to a set of events, which may become a pattern of responding. For example, several informants generalized how a sense of a loss of safety, distrust, or hopelessness followed them into future relationships or was something they carried with them thereafter and could even be experienced bodily as a constant lump of fear. Horney (1945, 1950) describes that individuals can move toward, move against, and move away from others in response to environmental factors that produced experiences of hopelessness or isolation in a child. However, these modes of reacting are not pathological in themselves, but similarly to Tomkins (1991), she suggests that it is rather the inability to vary one's response, which can become problematic. Horney hypothesized that a single mode of reacting could become a neurotic trend, a character trait in an individual, and proposed three types: compliant, aggressive, or detached.

The Pride and Pain of a Childhood With Big Responsibilities

In the first theme, participants described with in part pride and part resentment how they became the responsible and independent individuals they are today. The informants describe themselves as adaptable survivors who adopted these traits in order to cope with difficult life events or traumas. However, there is great nuance to the survivor story, and not all stories are redemption stories that highlight gains. Some individuals also emphasize that becoming independent did not feel like a choice but rather something that was forced upon them. While Baumeister and colleagues' theory of how bad events have stronger salience than good normalizes this phenomenon, McAdams et al. (2001) report that contamination stories, stories that go from good to bad, correlate with mental health problems such as depression. Baumeister et al. (2001) also propose that experiencing multiple negative events may have a snowball effect. As one informant explains, because she was the victim of abuse more than once, it became more difficult to externalize these events and thus blamed herself. Cumulative negative relational events may make it more difficult for an individual to ascribe that a negative event happened by chance and does not have

bearing on their identity or self-perception. Tomkins (1991) describes in his theory of affect regulation that especially the type of events that elicit fear and shame, an emotion that attacks the self, can result in compliance of what Winnicott (1960) describes as the false self and damages a child's ability to develop an integrated identity. Participants explain that they may have gained a sense of control after adverse experiences, but that control was not awarded to them by their own choosing. Tomkins (1991) elaborates that similar events that mobilize these effects of shame and fear and interfere with interest and enjoyment will result in conflicting feelings of hope and apprehension of redisappointment. Participants describe attaining their sense of agency with similar ambivalence. This sense of personal control and responsibility is described as a byproduct of pain, a coping strategy developed by the environmental factors that produced them, at the same time as it is revered by informants as their metaphorical life raft. In particular, participants identified gaining a sense of independence while losing a sense of trust in others, safety in relationships and safe boundaries. Having a sense of being left to fend for oneself at a young age touches upon experiences of abandonment and grief of the loss of the freedom and carelessness that often accompanies childhood, but what they may feel was stripped from them. Horney (1945) describes the detached type as individuals who lean toward moving away from people and are neither interested in fighting nor belonging. This closely resembles the fearful-avoidant attachment style in adults who identify with being uncomfortable getting close to others, difficulty trusting and depending on others despite wanting emotionally close relationships, and worrying about being hurt by others if one gets too close (Bartholomew and Horowitz, 1991). Horney (1945) describes that these individuals often have a strong need for self-sufficiency. Several informants underline that there was a single significant moment when it felt as if these boundaries, this safety, or the floor from under them was lost. The feeling that arose is described as a sense of being all alone, the only person who will watch out for themselves giving rise to the fierce self-reliance, independence, and anxiety that is central in how we understand perfectionism today.

I Am *the* Responsible One

In the second theme, participants conveyed taking responsibility in relationships as an important value to them today. As Tomkins (1991) discussed, individuals create scripts in response to such affect-laden events, which aid them in creating a pattern of predicting and responding to similar events. Even though the independence, responsibility, and self-sufficiency are described as a byproduct of pain, it is also described as an important trait among participants. Informants detail how hard work gives them the power to affect any given situation and most notably in how they are evaluated or judged by others. This strong sense of personal control and agency is also related to mental health. However, this again comes at a cost because when unable to control emotions or mental health, informants describe that they only have themselves to blame. Tomkins (1991) describes the basics of affect motivation as maximizing positive affects, minimizing the cause of negative affects, and minimizing affect inhibition. However, informants detail not only how they aim to minimize the cause of negative emotions, but in contrast with Tomkins (1991), also how to inhibit their negative affects in order to control how they are viewed. This implies that expressions of mental illness may be considered a personal weakness that has not been successfully controlled. A few informants also describe their emotions with contempt, as if a personal betrayal to their sense of control. This contempt of the true self, as discussed by Winnicott (1960), is the result of shame or fear. Tomkins (1991) suggests that compliance, the concealing of the true self in exchange for compliant behavior, serves to minimize these unwanted fear and shame-laden emotions. Some informants also describe, with regret, situations in which they turned toward others for help. By lamenting that they did not manage to help themselves and regretting they conveyed themselves poorly, they again highlight their strong beliefs and values of self-reliance, hard work, and independence. Pairing this with sole personal fault for allowing oneself to be judged also effectively maintains a sense of personal control but strips others of perceived agency and will, because what lies implicitly in taking all responsibility is that others have none or less. The implications of resilience through perceived control and inaccurate liability may pave way for the extreme self-criticism that accompanies the inevitable, unpredictable, and uncontrollable situations all individuals face in life.

Protecting the Inner Self From Double-Edged Others

Emotional distancing can serve as important coping and survival mechanisms by which one can protect oneself from being hurt, rejected, or overwhelmed. As Baumeister et al. (2001) explain, a single negative event in relationships is more powerful than any positive event, naturally giving more weight to avoiding negative relational experiences. If one learns that the risk of relational trauma is more dangerous than the pay-off of relational connection, perfectionism may have an important adaptive role in avoiding further decreases in well-being and increases in negative affect. Horney (1945, 1950) describes that individuals who move away from others, also called the detached type, distance themselves from others to consciously or unconsciously avoid emotional involvement. For the informants, emotional distancing may have helped them endure relational traumas by impeding the intimacy that can allow someone to come close enough to inflict more relational pain. However, emotional distance also comes with several disadvantages. Many informants also reflected that while they successfully achieved distance, they felt loneliness or fear around other people. By gaining this kind of relational control, one must sacrifice a sense of belonging, and Horney (1945); (Horney, 1950) explains that the detached type commonly experiences estrangement. As one participant recounts, she feels like the world around her is in community while she is watching it as an outsider. Through distancing, one may in one sense maintain a greater experience of control, but it may invariably contribute to increasing one's vulnerability to pain caused by others through isolation. Several informants noted that they adopt the way they present themselves in order to affect people's judgment of them and thereby spare

themselves from disapproval or rejection. This closely resembles the hypothesis of Mackinnon et al. (2013), who in a large longitudinal mixed-methods study found that perfectionism positively correlated with themes of agency, yet surprisingly did not correlate with domains of communion, such as friendship, support, togetherness, and mutual dialogue. They explain these results by discussing that individuals with perfectionism may want to have close interpersonal relationships but nevertheless fail to for a variety of reasons (Mackinnon et al., 2013). By trying to maintain perfect outward appearances, individuals may attempt to adapt better to different situations. Nevertheless, as many informants recount, by prioritizing the needs and desires of only those around them to, for example, avoid critical evaluation, they also cede their own wants, needs, and desires. Horney (1945, 1950) describes that detached individuals may become numb to their own experiences, feelings, needs, and desires. Some interviewed informants similarly describe a loss of a sense of self. It becomes more and more difficult to differentiate what they want from what they believe others want from them. In other words, participants may to a larger degree view the world around and themselves through the lens of their perception of the judgment of others.

Less Responsibility and More Hope in Moving Away

Similar to the previous theme, in the fourth theme, "Achieving physical distance to get a fresh start," informants do acknowledge that life can at times be unfair, despite hard work and control. Almost all the interviewed individuals had lived abroad or moved away to start a new life or escape situations that they felt were intolerable. These themes resemble each other because both reflect detached types' tendency to "turning away" from difficulty (Horney, 1945). By moving and distancing themselves physically, they again exerted agency and independence by turning away from difficult situations. However, in contrast to the previous theme, by moving physically, they exhibit a stronger sense of boundaries and self-empowerment. The action of changing environment outlines a shift in blame. This implies that moving potentially reflects greater externalization instead of internalization of problems because the fault is in others or the situation outside of oneself. This is interesting because it also represents the release of the perception control and responsibility in any given situation, and thereby a new script of response to an affect-laden event. However, it is also paradoxical, because moving can represent both giving up on belonging and gives rise to hope for a new situation or context. However, findings indicate that this had varied success for participants. Some describe that the problems primarily lie within them and therefore were inescapable or caught up with them, whereas others felt freedom and found a sense of belonging elsewhere. This motivation to belong is what differentiates Horney's description of the detached type who is not interested in belonging, and the fearful-avoidant type as described by Bartholomew and Horowitz (1991). This implies that emotional and physical distancing may serve a protective function but not accurately portray an individual's motivation for emotionally close relationships. Moving ultimately had no unifying result for all participants, but rather affected the individuals in different ways. It is also interesting to note that a few informants expressed they hoped they themselves would change or had successfully changed by moving, again reflecting the ambiguous boundaries felt between their sense of self and the world around them.

Limitations

There are several limitations to this study. First, although we investigated the relationship between adverse relational experiences and their effects on how individuals with perfectionism said they related to others, one cannot draw causational inferences about this relationship. The primary aim was simply to understand how individuals with perfectionism experience this relationship, and it may not relate exclusively to individuals with perfectionism. This study has a small sample and is based on in-depth interviews with nine student participants living in Norway, therefore limiting generalizability. Although we are concerned with reaching thematic saturation in qualitative methods, this does not preclude that more relevant themes or greater variation in themes could have become apparent with a larger or different sample. Finally, qualitative thematic analysis is a product of the informants, the interviewer, the context, the tools used, and the researcher's analysis. As a result, although the findings aim to stay as true as possible to the first-person experience of the interviewee, they will unavoidably be influenced by the relationship of all of the above.

CONCLUSION

In this qualitative analysis of how individuals with perfectionism give meaning to negative relational events, we identified four main themes. These themes highlight the importance of responsibility and distancing from others in response to relational pain and trauma. These findings indicate that distancing may serve an important function for individuals with perfectionism. The themes lend support to previous perfectionism theory, which indicates that although perfectionism may correlate with deficits in topics of communion, such as interpersonal problems, this should not be confused with communion motivation (Mackinnon et al., 2013). Although previous research has identified that ACEs may play a role in the development of perfectionism, this article is the first that we are aware of to understand this relationship from a first-person point of view. These findings are also important in nuancing our understanding of the phenomenon perfectionism and its known mental health correlates. We discuss how themes of control and agency may impact individuals' relationship to mental health and turning toward others for help. Previous research identifies perfectionism as a potential "barrier to treatment." These findings allow for greater complexity in our understanding of the relational mechanisms that may contribute to avoiding seeking help, resistance to treatment, and reduced treatment outcome in this population. Participants described a strong sense of personal responsibility and fear of being hurt. This has important clinical implications for building a strong therapeutic alliance. In addition, these findings nuance our understanding of individuals' ambivalent motivation for emotional distancing and do not necessarily imply a lack of desire for intimacy. Difficulty with emotional closeness and a

strong sense of personal control should also not be misjudged as they are described as survival techniques that have at times played an important role for participants. However, findings should not be used for generalizations of individuals with perfectionism, but rather shed light on the complexity of these relational mechanisms. Future research may want to further explore how and when individuals with perfectionism feel safer in relationships and clinical settings.

DATA AVAILABILITY STATEMENT

The datasets presented in this article are not readily available because Datasets generated for this study are available on request to the corresponding author. Requests to access the datasets should be directed to vivian.woodfin@uib.no.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Regional Committee for Medical and Health Research Ethics (Region North). The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

VW and P-EB contributed to the conception and design of the study. VW conducted the data collection and interviews. VW, P-EB, and AH contributed to the thematic analyses. VW wrote the first draft of the manuscript. P-EB and AH wrote sections of the manuscript. All authors contributed to manuscript revision, read and approved the submitted version.

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CLINICAL TRIAL
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A Randomized Control Trial of a Brief Self-Compassion Intervention for Perfectionism, Anxiety, Depression, and Body Image

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Objective: Due to a rise in perfectionistic tendencies and growing concerns about the increase in mental health conditions among students this study aimed to examine the effects of a brief intervention in self-compassion on maladaptive perfectionism, anxiety, depression, and body image.

Methods: The intervention consisted of four seminars and a silent half-day retreat with short lectures and relevant experiential practices from Mindful Self-Compassion (MSC) and Mindfulness Based Stress Reduction (MBSR). This randomized wait-list control trial was pre-registered at Clinicaltrials.gov (ID: NCT03453437, Unique Protocol ID: UiBMSC2018). University students were randomly assigned to the intervention group and wait-list control group and filled out surveys weekly. A repeated measures analysis of variance (ANOVA) was used to compare the groups pre- and post-treatment. Mixed level modeling was used to analyze changes in all outcome measures over time.

Results: Eighty-nine participants completed the intervention. Results of the ANOVA showed significant post-intervention reductions in maladaptive perfectionistic tendencies and symptoms of depression and anxiety, in addition to increased self-compassion and improved body image in the intervention group as compared to the wait-list group. Mixed level modeling showed statistically significant changes in self-compassion, maladaptive perfectionism, adaptive perfectionism, anxiety, and depression but not body image. Only the mixed level modeling showed small but significant changes to adaptive perfectionism, also called strivings. Implications of different changes to maladaptive perfectionism than adaptive perfectionism are discussed.

Keywords: self-compassion, perfectionism, intervention, depression, anxiety, RCT, body image

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INTRODUCTION

Studies in western countries report a rise in several mental health conditions among university students. A longitudinal study by Oswalt et al. (2020) based on 454,029 students in the United States report significant increases in anxiety, ADHD, depression, insomnia, OCD, and panic attacks between 2009 and 2015. Duffy et al. (2019) used two large national datasets of 610,543 students and report a more than doubling of severe depression, non-suicidal self-injury, suicide plans, and

suicide attempts between 2007 and 2018. This trend has also been observed in Norway, where more students report serious mental health problems than they did 8 years prior (Knapstad et al., 2018). In the most recent national survey, 29% Norwegian students reported having struggled with serious mental health problems (Knapstad et al., 2018). This trend is alarming, especially as it is unclear what is driving these changes. During the same time frame as researchers have observed the growing trend in mental health conditions, pressures on mental health services have also increased (Lipson et al., 2019). A study of 155,026 students found that rates of past year mental health service utilization on U.S. campuses increased from 19% in 2007 to 34% in 2017 (Lipson et al., 2019).

Perfectionism has recently been suggested to be a transdiagnostic process in mental illness and is linked to several mental health conditions, such as anxiety, depression, and eating disorders (Egan et al., 2011). Students also report increasing societal pressure to perform academically. A longitudinal study reports a 30-year trend of increases in perfectionism (Curran and Hill, 2019). Perfectionism is defined as having high personal standards and exaggerated self-criticism, doubts about actions and fear of making mistakes (Frost et al., 1990). It has been proposed that perfectionism consists of two factors (Stoeber and Otto, 2006; Stoeber, 2011; Woodfin et al., 2020). One factor, evaluative concerns, consisting of doubts about actions and fear of making mistakes and more often correlates to poor mental health outcomes such as depression, anxiety, and eating disorders, whilst the second factor, strivings, consists of high personal standards and is thought to be more adaptive, although this is still debated in the research field (Frost et al., 1990; Stoeber and Otto, 2006; Burgess et al., 2016; Woodfin et al., 2020).

Due to these rising trends in mental illness, more research is needed on ways in which to effectively prevent and treat psychological problems among young adults. In addition, due to perfectionism's role in maintaining mental health problems, research is needed to understand whether interventions can effectively reduce perfectionism.

Whilst perfectionism consists of exaggerated self-criticism, doubts about actions and fear of making mistakes (Frost et al., 1990), self-compassion is one's ability to treat oneself with kindness instead of criticism and judgment when experiencing failure and pain. As operationalized by Neff K. (2003), self-compassion consists of three diametrical components. The first is kindness as opposed to self-judgment which is described as treating oneself kindly, in particular when experiencing failure or suffering. The second component consists of common humanity as opposed to isolation, which means that one learns nobody is isolated or alone in making mistakes and experiencing distress, but rather that this is a shared human experience. Finally, the third component consists of mindfulness as opposed to overidentification which consists of experiencing distress without diminishing or exaggerating the importance of this (Neff K., 2003).

Previous studies on self-compassion interventions indicate that self-compassion courses can improve mental health over a short period of time, in large group settings and even online, and may therefore be both a time and cost-effective interventions to prevent and reduce mental health problems. In a multimethod project, including a quantitative multi-baseline randomized controlled trial (RCT), phenomenological interviews and a qualitative online survey, we found that a three-session self-compassion course gave gains in personal growth self-efficacy and healthy self-control, increases in self-compassion and reductions in anxiety and depression (Dundas et al., 2017). The participants experienced being more supportive and friendlier toward self, more aware of being too hard on oneself, feeling less alone when having painful feelings, more acceptance of painful feelings, and feeling more stable and peaceful, as the most important outcomes (Binder et al., 2019). Ferrari et al. (2019) conducted a meta-analysis to examine the effects of randomized controlled trials of 27 self-compassion interventions between 2010 and 2017. Results indicate that self-compassion interventions can lead to significant improvements in eating behavior, rumination, stress, depression, self-criticism, and anxiety. In addition, a systematic review of 28 studies indicate that self-compassion may be a potential buffer to both body and eating related outcomes (Braun et al., 2016). More studies are needed to both replicate these findings and to determine whether self-compassion interventions can have similar results in new populations and on new outcomes.

Also, lower self-compassion partially mediated the association between maladaptive perfectionism and depression in a college student sample, suggesting that maladaptive perfectionism may cause the negative effect on students mental health by lowering self-compassion (Mehr and Adams, 2016). In addition to being a suggested transdiagnostic process in mental health, perfectionism has also been described as a barrier to treatment because individuals who score higher on perfectionism have worse treatment outcome and are less likely to seek help (Blatt and Zuroff, 2002; Shannon et al., 2018). Perfectionism has long been considered a personality trait which can change in different contexts but remains relatively stable over a lifespan (Stoeber, 2018). However, perfectionism also correlates negatively with self-compassion. The more self-compassionate an individual is the less likely they are to score high on perfectionism (Neff K. D., 2003). This correlation is interesting because it has been unclear to what degree perfectionism can change over time, whilst self-compassion has shown to be malleable and can improve through self-compassion targeting interventions. Previous studies have shown that developing self-compassion through training can significantly reduce self-critical judgment (Beaumont et al., 2016).

The aim of this study was to examine the effects of a 3 week-long self-compassion course on perfectionistic tendencies, mental health and body image among Norwegian university level students. Our primary hypothesis was that a brief self-compassion course would be sufficient to increase self-compassion. A secondary aim of the study was to examine if the self-compassion course would also be sufficient to induce positive changes in perfectionism, body image and mental health. At baseline we expected low levels of maladaptive perfectionism and lower levels of depression, anxiety and body appreciation would be related to greater self-compassion. We expected higher levels of maladaptive perfectionism to be related to lower baseline self-compassion, higher levels of depression and anxiety, and lower

levels of body appreciation. In summary, the aim of this study was to investigate the effects of a brief self-compassion course on perfectionistic tendencies, anxiety, depression and body image.

MATERIALS AND METHODS

Participants

Eighty-nine of 221 student participants from two universities in Western Norway completed the self-compassion intervention. The mean age of participants was 27 (range 19–65) years. The sample consists of 21.6% men. The first baseline measure was also open to students who did not want to sign up for the course, as a result we measured drop-out rate from the second baseline. The first baseline measures were therefore only used for analyses of baseline correlations. Forty-five percent of students who filled out the survey more than once completed the course. *T*-tests showed no significant differences between these groups with the exception of levels of self-compassion. Participants who completed the course had higher baseline self-compassion means ($M = 33.15$) than the group that discontinued ($M = 31.26$). Participants attended the course anonymously, as a result only participants who let the course instructors know they would discontinue could be asked why they dropped out. The most common reasons for discontinuing were sickness, too many other engagements such as exams and family, moving, or having been randomized to the course with dates which did not fit their schedule.

Procedure

The Norwegian Regional Committees for Medical and Health Research Ethics-North 2015/2211 approved this study and it was pre-registered at Clinicaltrials.gov. Participants were recruited in three waves, in the spring semester 2018, fall semester 2018, and spring semester 2019. All separate faculties were contacted in order to secure a more heterogenous population, however, the psychology faculty was excluded due to the instructors of the intervention's affiliation to the psychology faculty. Each faculty was asked to assist with recruitment through the channels they most often used to contact students. For example, some faculties used newsletters whilst others contacted students by e-mail or through Facebook groups. The link was distributed by e-mail 2,381 times. Participants were given information in a short paragraph describing that we were conducting a research study on the effects of a brief self-compassion intervention. This brief description included a link to SurveyXact which directed interested students to an informed consent form. The informed consent included more details on the course and what the study entailed. This link was active for 2–7 days each semester. The first survey page provided potential participants with choices to consent to participate and sign up for the study or discontinue. Participants entered a lottery to win movie tickets each week they filled out the survey. Recruitment was limited to 90–110 students per semester (45–55 students per group) on a first come basis. Students who could not be included in the study were informed when the next course would be held. We expected up to 50% drop-out rate pre-intervention due to the accessibility of the online sign-up form. Participants were randomly assigned to the active intervention group or wait-list control group each semester. As a result, the course was held a total of six times for six separate groups, three experimental and three wait-list control groups. For the analyses, the three experimental groups were combined and the three wait-list control groups were combined. Each group filled out the surveys weekly including two baselines, a total of six times. In addition, the wait-list control group filled out a third baseline at the same time point as the experimental group completed the course.

Intervention

The 3-week intervention consisted of a total of five sessions, four weekly seminars and a silent retreat, and was made up of self-compassion and mindfulness exercises from both the Mindful Self-Compassion (MSC) and Mindfulness Based Stress Reduction (MBSR) programs. Each weekly seminar lasted approximately 3 h with the exception of the silent retreat day which was held on a weekend and lasted 4 h. This extra retreat seminar is meant to allow students time to deepen their meditation practices without interruption. All the courses were led by the same two psychologists and teachers who had undergone teacher-training in MSC. An additional third MSC-teacher and psychologist was present to assist for the first two courses. Each session included brief 15-min lectures, followed by short guided exercises, group discussions, and guided experiential practices. The group was asked after the practice if anyone wanted to share and explore their experiences of each practice which in Mindful Self-Compassion is referred to as inquiry. In the experiential practices the task is to immerse oneself in the experience (for instance, to consider how they treat themselves and how they treat others in difficult situations), and then reflect upon these practices. After each weekly course students were given access to a new recorded audio of guided self-compassion exercises 10–20 min in length. Participants were encouraged to practice self-compassion daily until the following course.

The first session included a brief orientation of the course and a summary of all the sessions. Participants were introduced the structure of the course, and about "backdraft" and other possible challenges when working with self-compassion. Participants were asked to contact one of the two instructors always present if they experienced any difficulty during the course. Exercises during this first session included a meditation from MSC called "Why am I here." Participants could explore first through meditation and reflection what had brought them to the course. Participants were then introduced the MSC exercise, "affectionate breathing." This first session also included the writing and reflection exercise "How would you treat a friend." The exercise asks students to reflect on how they treat themselves compared to how they would treat a close friend in a situation in which they are struggling, or they have made a mistake. The final exercise in session 1 was the "self-compassion break" which is designed to be used as an exercise to invoke self-kindness, common humanity and mindfulness in moments when one needs self-compassion. The exercises were followed by talking to another participant about the exercise, and a brief group inquiry by the course instructors. In addition to exercises and inquiry, the first session also included

three brief psychoeducative lectures between 5 and 10 min long on compassion, self-compassion, self-compassion in every day life and a brief summary of self-compassion research.

The second session consisted of three exercises from MSC: "affectionate breathing," "finding out what I really want," and "soften, soothe, allow." These exercises were new to participants and inquiry was used to gauge how participants were responding and allow participants to reflect on these experiences. Between these exercises we held two 15-min psychoeducative lectures on mindfulness: how to practice kind awareness, and how to accept and respond to difficult emotions, such as shame.

The third session's theme was perfectionism and core values. In addition to repeating core meditation from session one and two, the third session introduced a new meditation from the MSC program called "loving-kindness for ourselves" and a core value exercise called "living with a vow" which allowed participants to reflect on which values are important to them. Between these meditations we held two brief lectures on perfectionism and core values.

The retreat day was held in silence so that participants could focus more in depth on their own experiences. However, participants were encouraged to speak to instructors if they encountered any difficulty. The retreat was held on campus on a weekend. Only exercises and no lectures were included on this day. Due to the length of the half-day silent retreat, we incorporated several movement exercises to lessen the strain of sitting for extended periods of time. The exercises included from MSC on this day were sense and savor walk, affectionate breathing, savoring food, soles of the feet, loving-kindness for ourselves, compassionate movement, and giving and receiving compassion. In addition, the MBSR exercise compassionate body scan was included. Participants had previous experience with all the MSC meditations from previous sessions with the exception of soles of the feet and savoring food.

The final session included the MSC meditations giving and receiving compassion, awareness of positive feelings and practicing gratitude. Like previous sessions, instructors held inquiry between each exercise, and brief lectures. The topics for the final session lectures were mindfulness and compassion; joy, gratitude and positive emotions; and compassion for oneself and others. Participants were also asked to reflect on which exercises had made the largest impact on them, and reflect on how self-compassion might be incorporated in their daily life going forward.

Outcomes

Self-Compassion Scale- Short

The short version of the self-compassion scale consists of 12 of the original 26 items scored on a 5 point Likert scale from 1 (almost never) to 5 (almost always). The short version also includes both positive aspects of self-compassion, self-kindness and common humanity, and items from the negative subscales, which measure self-judgment, over-identification and isolation, and has shown a near-perfect correlation with the original scale (Raes et al., 2011). However, the original 26-item version is recommended for analyses at the subscale-level. The original self-compassion scale has been translated to Norwegian and with reportedly good psychometric properties in this population (Dundas et al., 2016).

Frost Multidimensional Perfectionism Scale-Brief

Frost Multidimensional Perfectionism Scale-Brief (FMPS-B) was used to measure perfectionistic tendencies (Frost et al., 1990; Burgess et al., 2016). The scale has eight items, four of which represent evaluative concerns and the remaining four represent strivings. Items are rated on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). The original Frost multidimensional perfectionism scale consists of 35 items. The items included in the FMPS-B are items from 3 of the 5 the original subscales: concern over mistakes, doubts about actions, and personal standards. The scale was translated and validated with a Norwegian sample (Woodfin et al., 2020). The scale's internal consistency (Cronbach's alpha) in this study was 0.83. The validation study indicated that the FMPS-B consist of two factors consistent with previous literature on perfectionism which divided perfectionism into strivings and evaluative concerns. In the brief scale, strivings consists of items from the previous subscale personal standards and the factor evaluative concerns consists of items from the previous subscales concern over mistakes and doubts about actions (Frost et al., 1990; Burgess et al., 2016).

Body Appreciation Scale

The Body Appreciation Scale (BAS) consists of 13 items which assess body image on a Likert scale from 1 (never) to 5 (always). A higher score indicates higher body image appreciation the scale is widely used, and has acceptable reliability and validity (Avalos et al., 2005).

State-Trait Anxiety Inventory

The 20-item trait subscale of the State-Trait Anxiety Inventory (STAI) was used to measure symptoms of anxiety (Spielberger et al., 1983). The subscale's 20 items are rated on a Likert scale from 1 (almost never) to 4 (almost always) and reflect general feelings of anxiety. The scale was previously validated in a Norwegian sample (Håseth et al., 1990) and had an internal consistency (Cronbach's alpha) of 0.90 in our study (Woodfin et al., 2020).

Major Depression Inventory

Major Depression Inventory (MDI) was used to measure symptoms of depression over the past 2 weeks. The MDI consists of 13 items on a Likert scale from 1 (not at all) to 6 (all of the time) (Bech et al., 2001). There are two pairs of items in which only the highest score of each pair is used for the total score. The scale was previously validated in Danish (Olsen et al., 2003) and translated to Norwegian (Dundas et al., 2016). In this study, the instrument had an internal consistency (Cronbach's alpha) of 0.88 (Woodfin et al., 2020).

Statistical Analyses

We used a repeated measures analysis of variance (ANOVA) in order to test within and between differences of the control group and active treatment group. We expected there to

be no significant differences between groups at the baseline measures when neither group had undergone the intervention, but significant differences between the groups at time 6, which was pre-treatment for the wait-list group and post-treatment for the active treatment group. Mixed level modeling was used in order to analyze if outcome measures changed significantly over time. For the mixed level modeling analysis, both groups were combined for more power. *A priori* power analysis was conducted to test the differences within and between two independent group means (mixed ANOVA) with a small to medium effect size (Cohen's $d = 0.30$), and an alpha of 0.05. Results showed that the analysis required a sample of 90 participants to achieve a power of 0.80.

RESULTS

Baseline correlations showed that self-compassion correlated negatively with depression [$N(353)$, $r = -0.55$, $p < 0.01$], anxiety [$N(353)$, $r = -0.72$, $p < 0.01$] and positively with body appreciation [$N(353)$, $r = 0.59$, $p < 0.01$], meaning students who scored higher on self-compassion at baseline had lower scores depression, anxiety and higher body appreciation.

The repeated measures ANOVA was used to compare the control group and active treatment group at both baseline times and after the treatment group had completed the course compared to the control group, which had not. A series of group (2) by time (3) repeated measures ANOVAs showed that there were significant differences between the control group and the active treatment group in levels of self-compassion, evaluative concerns, anxiety, depression, and body image at the time when only the active group had completed the self-compassion course. Self-compassion [$F(1,84) = 11.10$, $p < 0.001$, $\eta p2 = 0.12$] and body image [$F(1,84) = 6.32$, $p < 0.05$, $\eta p2 = 0.07$] increased significantly. Whilst anxiety [$F(1,84) = 8.10$, $p < 0.01$, $\eta p2 = 0.09$], depression [$F(1,84) = 7.20$, $p < 0.01$, $\eta p2 = 0.08$], evaluative concerns [$F(1,84) = 5.15$, $p < 0.05$, $\eta p2 = 0.06$] decreased significantly. The only measure in which the groups showed no significant difference was perfectionistic strivings [$F(1,84) = 0.14$, $p > 0.05$, $\eta p2 = 0.00$]. Simple main effects analysis using estimated marginal means with Sidak correction indicated no significant differences between groups at baseline. There were significant mean differences between groups at time 3 for anxiety [−6.94 (95% CI, −11.80–2.09) $p < 0.01$], depression [−5.85 (95% CI, −10.18- −1.52) $p < 0.01$], evaluative concerns [−2.14 (95% CI, −4.02- −0.26) $p < 0.05$], and body image [4.64 (95% CI, 0.97–8.32) $p < 0.05$]. Univariate tests of the estimated marginal means to test for effect of cohort indicated no significant differences between groups prior to the intervention. Pairwise comparisons of baseline times, indicated no significant changes for anxiety, depression, evaluative concerns, strivings, nor body image between time 1 to 2. However, there were significant changes between baseline 1 and 2 in self-compassion [1.07 (95% CI, 0.03–2.10) $p < 0.05$]. This means that students improved slightly in levels of self-compassion prior to the commencement of the course. Summarizing, the intervention seemed to have induced positive changes in all outcome variables but not significantly affected perfectionistic strivings.

A multi-level level modeling analysis of six measurement times of both groups combined after both groups had received the intervention, replicated the findings that there were statistically significant changes over time for self-compassion, evaluative concerns, anxiety, and depression. Self-compassion increased significantly over time ($B = 1.47$, $p < 0.001$). Evaluative concerns decreased significantly over time ($B = -0.60$, $p < 0.001$). Anxiety decreased significantly over time ($B = -1.58$, $p < 0.001$). And depression decreased significantly over time ($B = -0.98$, $p < 0.001$). However, unlike the results of the ANOVA, in this analysis strivings decreased significantly over time ($B = -0.20$, $p < 0.001$), whilst body image did not decrease significantly ($B = -0.35$, $p > 0.05$). In addition, there were significant differences in evaluative concerns explained by age ($B = -0.11$, $p < 0.05$) and anxiety explained by age ($B = -0.33$, $p < 0.05$) (see **Table 1**).

Summarizing, the analyses resulted in some mixed findings. In the multi-level modeling analysis perfectionistic strivings saw a significant reduction. However, this reduction was smaller than for evaluative concerns, and there were no significant differences in strivings in the ANOVA comparing the intervention group with the waitlist group. In addition, the analyses gave differing results for body appreciation, in that body appreciation increased after the intervention when comparing the groups in the ANOVA but not in the multi-level level modeling analysis which measured changes over 6 time points.

DISCUSSION

Results from this study indicate that self-compassion can increase through a brief 3-week mindfulness and self-compassion based intervention in a university setting. Increases in self-compassion were accompanied by decreases in anxiety and depression over time. These results support the meta-analysis conducted by Ferrari et al. (2019) which compiled and studied the effects of 27 self-compassion studies between 2010 and 2017. They observed significant changes in stress, depression, self-criticism, and anxiety.

Our results on changes in body image were mixed. When the intervention group was compared with the control group, significant positive changes were seen. However, when both groups had received the intervention and were combined in the multilevel analysis, this change did not reach significance. This contrasts to studies by Albertson et al. (2015) and Ferrari et al. (2019). In Ferrari's and colleagues' meta-analysis (2019) the largest effects of the self-compassion studies were seen for eating behavior and rumination. Furthermore, a self-compassion intervention study by Albertson et al. (2015) found significantly greater reductions in body dissatisfaction, body shame and contingent self-worth based on appearance in the active treatment group as opposed to their control group.

The differences between these results and our more inconsistent results, might be related to the fact that our intervention was not directed toward body dissatisfaction, nor did our sample show high levels of body dissatisfaction at baseline. As compared with baseline values in a female college

TABLE 1 | Mixed level model of changes in mental health outcomes over time.

	Self-compassion	Depression	Anxiety	Evaluative concerns	Strivings	Body appreciation
(Intercept)	31.27***	21.46***	55.01***	13.55***	13.74***	26.79***
	(0.89)	(1.23)	(1.42)	(0.55)	(0.46)	(1.21)
c.age	0.09	−0.28*	−0.33*	−0.11*	−0.01	−0.03
	(0.10)	(0.12)	(0.15)	(0.05)	(0.05)	(0.08)
male	0.13	−1.53	−1.03	−0.73	−0.10	−0.46
	(1.68)	(2.14)	(2.65)	(0.97)	(0.95)	(1.38)
time	1.47***	−0.98***	−1.58***	−0.60***	−0.20***	−0.35
	(0.15)	(0.19)	(0.20)	(0.08)	(0.05)	(0.29)
AIC	2923.58	3291.52	3362.59	2226.76	2119.40	3670.22
BIC	2961.40	3329.35	3400.42	2264.58	2157.22	3707.97
Log likelihood	−1452.79	−1636.76	−1672.30	−1104.38	−1050.70	−1826.11

$^{***}p < 0.001$; $^{*}p < 0.05$.

student sample in the original study of Avalos et al. (2005), our baseline values were [$N(365)$, $M = 3.12$], indicating that ours was a normal sample with regard to BAS. Perhaps changes in body appreciation are not to be expected in a sample which has not sought help for body related problems, especially not when the intervention was not specifically directed toward creating such changes.

The present results indicated that it is possible to decrease maladaptive perfectionism (evaluative concerns), but that adaptive perfectionism (perfectionistic strivings) may be less affected. Whilst evaluative concerns decreased significantly for the active group compared to the wait-list, perfectionistic strivings (adaptive perfectionism) did not. What is commonly referred to as adaptive perfectionism (perfectionistic strivings) remained stable. However, perfectionistic strivings did decrease slightly over the course of multiple time points as measured by mixed level modeling. Perfectionistic strivings consists of having high personal standards and expectations, whilst evaluative concerns consists of fear of making mistakes and doubts about one's actions. As a result, strivings is to a greater degree consistent with one's intrinsic interest in achieving high academic and other results, a factor which can remain more stable and consistent whilst individuals can simultaneously decrease fears of mistakes and doubts about actions. The implication of changing or reducing evaluative concerns but not strivings through an intervention targeting self-compassion, is that one factor of perfectionism may be more malleable than the more adaptive perfectionism factor. In addition, these changes in maladaptive perfectionism can occur irrespective of the stability in adaptive perfectionism. This indicates that students' motivations to learn and achieve might not be reduced although their fear of failure might be. This is consistent with a prior study on the effect of a short self-compassion intervention in a similar student samples, where scores on the Personal Growth Initiative Scale (PGIS), increased, while depression and anxiety decreased (Dundas et al., 2017).

Although it is unclear why we found significantly higher levels of self-compassion at baseline among those who completed the course as opposed to those who dropped out, this may be partially explained by previous research and theory on outcome expectancy and fear of self-compassion. Patients' expectations are considered an important common factor of psychotherapy outcome. Schulte (2008) defines outcome expectancy and developed a scale consisting of three main factors: hope of improvement, fear of change, and suitability. Previous research indicates that compassion for oneself may be experienced as threatening, even physiologically, for individuals who are highly self-critical, with insecure or avoidant attachment styles, or have experienced abuse, neglect or shame by caregivers (Rockliff et al., 2008; Liotti, 2010; Gilbert et al., 2011). Although self-compassion is an important component for treatment of mental health problems, fear of self-compassion may need to be addressed more specifically than this study was able to in a large anonymous group setting at a university.

It remains unclear how self-compassion acts as a mechanism of change for students. Prior studies have suggested that self-compassion may increase individual' abilities to tolerate stressful feedback about one's performance or person. Feedback on instances of failure may be a part of learning and can sometimes be harsh and humiliating in academic settings. In a series of studies with students, Leary et al. (2007) found that self-compassion may buffer reactions to situations that may involve failure, humiliation and rejection. Moreover, college students higher on self-compassion have been reported to have higher intrinsic motivation and lower performance motivation, meaning that they are motivated more by the wish to master new material, than the wish to win others' approval for their performance (Neff et al., 2005).

Strengths and Limitations

The strengths of this study are stringent randomization, a control group, and transparency through pre-registration and a detailed description of the intervention. This rigor and transparency allows others to replicate this study. In addition, this project addresses a gap in the literature, as no other study to date has used self-compassion interventions to address maladaptive perfectionism. However, this study also has several limitations. Our sample is limited to students from Western Norway, and primarily of female participants (78.4%), which may limit generalizability. In order to address the limitations of student

populations we recruited from all but psychology faculties from two different universities. The use of wait-list control groups also poses some limitations to validity. The Hawthorne effect suggests that individuals will change their behavior when they are being observed/measured. In this study, participants could have for example accessed self-compassion literature and practices prior to beginning the course. Other studies also suggest the opposite, that participants could exaggerate symptoms in order to maintain their spot in the group, or because they will not act but rather wait to change. As a result, research suggests that wait-list control groups may have exaggerated effect sizes compared to no treatment or psychological placebo (Furukawa et al., 2014). In addition, due to drop-out we did not achieve enough power for the originally planned moderator analyses. Whilst accessibility to the course and anonymity were a major strengths of the intervention during recruitment, these also were a major limitation of our study, as many students signed up to participate online (55%) did not come to the course or dropped out. Students' anonymity also limited our ability to follow up reasons why students chose not to attend or discontinued unless they contacted us. In addition, we did not measure for compliance of homework, meaning some participants may have been practicing meditations on their own more than others.

CONCLUSION

The study adds to the literature on the positive effects of mindfulness and self-compassion based interventions, by showing that even a short 3-week mindfulness/self-compassion intervention can have positive effects on students perfectionism, as well as on anxiety and depression in a university setting. Interestingly, the intervention reduced negative perfectionism, more than it affected perfectionistic strivings. In accordance with other research we suggest that perfectionistic strivings may be an adaptive form of perfectionism (Stoeber and Otto, 2006), perhaps among students as well as athletes. This has implications for interventions aimed at counteracting the rise in several mental health conditions among students (Duffy et al., 2019; Oswalt et al., 2020). This study's results implicate that being more self-compassionate may be possible without losing the positive aspects of perfectionistic strivings, such as wishing to do ones best.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Norwegian Regional Committees for Medical and Health Research Ethics-North 2015/2211. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

VW and ID collected the data. P-EB and VW held the course. VW organized the database and wrote the first draft of the manuscript. HM and VW performed the statistical analyses. ID, HM, and P-EB wrote sections of the manuscript. All authors contributed to the conception and design of the study, contributed to the manuscript revision, read, and approved the submitted version.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyg.2021.751294/full#supplementary-material

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Doctoral Theses at The Faculty of Psychology, University of Bergen

1980	Allen, Hugh M., Dr. philos.	Parent-offspring interactions in willow grouse (Lagopus L. Lagopus).
1981	Myhrer, Trond, Dr. philos.	Behavioral Studies after selective disruption of hippocampal inputs in albino rats.
1982	Svebak, Sven, Dr. philos.	The significance of motivation for task-induced tonic physiological changes.
1983	Myhre, Grete, Dr. philos.	The Biopsychology of behavior in captive Willow ptarmigan.
	Eide, Rolf, Dr. philos.	PSYCHOSOCIAL FACTORS AND INDICES OF HEALTH RISKS. The relationship of psychosocial conditions to subjective complaints, arterial blood pressure, serum cholesterol, serum triglycerides and urinary catecholamines in middle aged populations in Western Norway.
	Værnes, Ragnar J., Dr. philos.	Neuropsychological effects of diving.
1984	Kolstad, Arnulf, Dr. philos.	Til diskusjonen om sammenhengen mellom sosiale forhold og psykiske strukturer. En epidemiologisk undersøkelse blant barn og unge.
	Løberg, Tor, Dr. philos.	Neuropsychological assessment in alcohol dependence.
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	Håland, Wenche, Dr. philos.	Psykoterapi: relasjon, utviklingsprosess og effekt.
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	Jellestad, Finn K., Dr. philos.	Effects of neuron specific amygdala lesions on fear-motivated behavior in rats.
1987	Aarø, Leif E., Dr. philos.	Health behaviour and sosioeconomic Status. A survey among the adult population in Norway.
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	Løberg, Else-Marie, Dr. psychol.	Functional laterality and attention modulation in schizophrenia: Effects of clinical variables.
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	Laumann, Karin, Dr. psychol.	Restorative and stress-reducing effects of natural environments: Experiencal, behavioural and cardiovascular indices.
	Holgersen, Helge, PhD	Mellom oss - Essay i relasjonell psykoanalyse.
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	Iversen, Anette Christine, Dr. philos.	Social differences in health behaviour: the motivational role of perceived control and coping.
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	Sævi, Tone, Dr. philos.	Seeing disability pedagogically – The lived experience of disability in the pedagogical encounter.
	Wiium, Nora, PhD	Intrapersonal factors, family and school norms: combined and interactive influence on adolescent smoking behaviour.
	Kanagaratnam, Pushpa, PhD	Subjective and objective correlates of Posttraumatic Stress in immigrants/refugees exposed to political violence.
	Larsen, Torill M. B. , PhD	Evaluating principals` and teachers` implementation of Second Step. A case study of four Norwegian primary schools.
	Bancila, Delia, PhD	Psychosocial stress and distress among Romanian adolescents and adults.
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	Nordanger, Dag Øystein, Dr. psychol.	Psychosocial discourses and responses to political violence in post-war Tigray, Ethiopia.

	Rimol, Lars Morten, PhD	Behavioral and fMRI studies of auditory laterality and speech sound processing.
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	Norman, Elisabeth, Dr. psychol.	Gut feelings and unconscious thought: An exploration of fringe consiousness in implicit cognition.
	Israel, K Pravin, Dr. psychol.	Parent involvement in the mental health care of children and adolescents. Emperical studies from clinical care setting.
	Glasø, Lars, PhD	Affects and emotional regulation in leader-subordinate relationships.
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	Haukebø, Kristin	Cognitive, behavioral and neural correlates of dental and intra-oral injection phobia. Results from one treatment and one fMRI study of randomized, controlled design.
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	Bjørknes, Ragnhild	Parent Management Training-Oregon Model: intervention effects on maternal practice and child behavior in ethnic minority families
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	Brattabø, Ingfrid Vaksdal	Detection of child maltreatment, the role of dental health personnel – A national cross-sectional study among public dental health personnel in Norway
	Fylkesnes, Marte Knag	Frykt, forhandlinger og deltakelse. Ungdommer og foreldre med etnisk minoritetsbakgrunn i møte med den norske barnevernstjenesten.
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