

Enhancing the Patient's Role

Exploring patient influence in acceptance-based cognitive behavior therapy delivered
via internet

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via internet

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The only way out is through
Robert Frost

Abstract

Background: The global primary health care declaration emphasizes empowering patients to exert influence over their own health. A person-centered approach to care involves a shift from the traditional passive patient role to active involvement in health care decisions. Internet-delivered cognitive behavioral therapy (ICBT) increases access to care and is effective for various mental health conditions.

Aims: The overarching aim of this doctoral thesis was to enhance the patient's role by exploring how patient influence can be conceptualized and integrated into acceptance-based transdiagnostic ICBT for anxiety disorders treated in Swedish primary care.

Results: Four studies were performed within the scope of this doctoral dissertation. **Study I** used mixed methods to investigate patient experiences and the feasibility and acceptability of adding peer support workers (PSWs) into acceptance-influenced ICBT for anxiety disorders. Incorporating PSWs into ICBT was practically feasible and well received by participants in a small sample of primary care patients ($n=9$). The qualitative results emphasized the personal relationship in therapeutic guidance and the sense of empowerment from sharing experiences. **Study II** was an RCT investigating a patient-driven acceptance-influenced ICBT for patients with anxiety disorders treated in primary care ($n=55$). Participants in the patient-driven intervention chose and self-tailored their treatment, resulting in greater perceived control and reduced anxiety symptoms compared to standard treatment. A medium-sized association was observed between changes in anxiety symptoms and empowerment. **Study III** assessed the effectiveness of an internet-delivered acceptance and commitment therapy (ACT) for adolescents with anxiety disorders in an RCT. Participants ($n=52$) were a self-selected group recruited from all over Sweden. The treatment was effective in increasing quality of life and psychological flexibility and had a positive effect on post-treatment diagnoses. A strong association was found between changes in psychological flexibility and anxiety symptoms. **Study IV** was a psychometric evaluation of the Swedish version of the Empowerment Scale – Making Decisions conducted on clinical patients in primary care ($n=210$) and psychiatric care ($n=221$) using confirmatory factor analysis (CFA). Results showed that none of the previously suggested factor solutions, tested through CFA, could be confirmed in our samples of primary care and psychiatric care patients and that it is doubtful whether the scale represents a single empowerment construct.

Conclusions: This doctoral thesis contributes to the field of internet-delivered mental health interventions by exploring the integration of patient influence through acceptance and commitment therapy, incorporating patient-driven components, and making patients' experiences part of treatment. The research underscores the potential for improving treatment outcomes and quality of life, promoting psychological flexibility, belonging, and a sense of control over one's care. The studies serve as a foundation for future research and development, paving the way for person-centered and tailored approaches in digital mental health treatments.

Keywords: Internet-based intervention, Anxiety disorders, Primary health care, Acceptance and commitment therapy, Patient involvement, Person-centered care, Patient empowerment

Sammanfattning (Swedish summary)

Bakgrund: I Sverige är primärvården ansvarig för att identifiera och ge första linjens vård vid psykisk ohälsa. Primärvården har under de senaste åren genomgått, och fortsätter att genomgå, en reform för att kunna möta mer komplexa behov, ge mer långtidsvård och ta hand om en större och åldrande befolkning, faktorer som blivit aktuella utifrån förändringar i demografi, livsstil och mer effektiva behandlingar av tidigare dödliga sjukdomar. Primärvården har utifrån politiska beslut getts uppdraget att vara den naturliga första punkten vid vårdkontakt och att ge en *nära och samordnad vård* till befolkningen.

En viktig aspekt av den nära och samordnade vården är att patienter ska involveras i sin egen vård, och att vården ska vara person-centrerad. Ett personcentrerat förhållningssätt innebär en förskjutning från den traditionella relationen mellan vårdgivare och patient, där patienten är en passiv mottagare av vård, till att se patienter som aktiva agenter som är delaktiga i beslut kring egen hälsa och sjukvård. Ett personcentrerat förhållningssätt till vård går hand i hand med den tredje pelaren i att som vårdpersonal arbeta evidensbaserat, som understryker vikten av att integrera patientens individuella situation, erfarenheter, preferenser och önskemål i beslut rörande den egna sjukvården. Att ta hänsyn till patientens preferenser för behandling har visat sig påverka resultatet av, följsamheten till och tillfredställelsen med behandlingen.

Internetbaserad kognitiv beteendeterapi (IKBT) är en evidensbaserad behandling som bygger på självhjälp tillsammans med regelbundet stöd från en behandlare, ofta i skriftlig form. IKBT kan ge ökad tillgång till vård för patienter, och har visat sig vara en effektiv behandling vid en rad olika psykiska problem. Detta är av betydelse då ett av de största problemen gällande behandling av psykisk ohälsa, både internationellt och i Sverige, är bristen på tillgång till behandling, med för få utbildade yrkesverksamma med specifik expertis inom området psykisk hälsa. En begränsning med IKBT-behandlingar är dock att de är fasta strukturerade program, vilket begränsar möjligheten att anpassa behandlingen utifrån patientens unika situation, preferenser och problem. Många patienter i primärvården har flera samtidiga psykiska besvär som kan behöva adresseras genom olika interventioner och behandlingar. För att förbättra resultaten av internetbaserade psykologiska behandlingar kan det därför vara viktigt att undersöka faktorer för att personanpassa behandlingen.

Acceptance and Commitment Therapy (ACT) bygger på kärnprinciperna för KBT och passar väl in i det personcentrerade förhållningssättet och tredje pelaren i evidensbaserad vård. Det främsta syftet med ACT-behandling är att främja patientens *psykologiska flexibilitet*, vilket kan definieras som förmågan till flexibelt handlande utifrån situationen och i riktning mot sina långsiktiga värderingar. Inom ACT läggs tonvikt på att hjälpa patienterna att identifiera sina egna värderingar och att ta reda på vad som är viktigt i deras liv. Värderingar ses som en del av motivationen som patienten kan behöva för att kunna acceptera händelser och motgångar i livet och med alla former av känslor leva livet utifrån en känsla av meningsfullhet. ACT är en transdiagnostisk behandling och bygger på holistiska principer som anses signifikanta för all form av psykiskt lidande. ACT kan därmed vara en lämplig behandlingsmetod för att adressera flera samtidiga tillstånd och psykiska diagnoser hos patienterna. Karaktäristiskt för ACT är också att undersöka verksamma mekanismer i behandling som bidrar till positivt behandlingsutfall. Genom kunskap om verksamma mekanismer kan behandlare lättare anpassa interventionerna till de specifika behoven hos den enskilda patienten.

Syfte: Det övergripande syftet med den här doktorsavhandlingen var att stärka patientens roll i internetbaserad psykologisk behandling genom att utforska hur patientinflytande kan conceptualiseras och integreras i relation till denna behandlingsform. Studierna som ingår i avhandlingen utforskar var för sig olika dimensioner av patientinflytande inom acceptansbaserad transdiagnostisk IKBT för ångestproblem.

Resultat: Fyra vetenskapliga studier utfördes inom ramen för doktorsavhandlingen. I **Studie I** användes både kvalitativa och kvantitativa metoder för att undersöka patientupplevelser, genomförbarhet och acceptans av att inkludera "peer supportrar" som en extra stödperson för patienter som tog del av en acceptansbaserad IKBT-behandling för ångest. En peer support är en person med egen erfarenhet av psykisk sjukdom och behandling, som anställs inom vården för att fungera som en professionell stödperson för patienter utifrån egna erfarenheter och upplevelser. Deltagare till studien rekryterades från vuxna patienter som sökte eller hade hänvisats till internetbaserad behandling inom primärvården. Resultaten visade att det var genomförbart att inkludera peer-supportrar i IKBT-behandling i ett litet urval av primärvårdspatienter med ångest och att behandlingen togs väl emot av deltagarna ($n=9$). De kvalitativa resultaten av patienternas upplevelser av behandlingen betonade den personliga relationen som skapades med peer-supportrarna, och betydelsen av att kunna dela erfarenheter för känsla av hopp och normalisering. Resultaten ger initialt stöd för acceptansen och genomförbarheten av behandlingen och kan vägleda framtida studier och utveckling av internetbaserade kamratstödda interventioner.

Studie II var en randomiserad kontrollerad studie (RCT) som undersökte en patientdriven acceptansbaserad IKBT-behandling för patienter med ångest som rekryterades från primärvården ($n=55$). Den patientdrivna interventionen innebar att deltagarna fick välja och själva skräddarsy delar av sin behandling. Den patientdrivna gruppen jämfördes med en grupp som tog del av behandlingen så som den vanligtvis brukar ges, där behandlingsprogrammet har ett standardiserat upplägg och inriktning på programmet i hög grad bestäms utifrån patientens diagnos. Resultaten visade att deltagarna i den patientdrivna gruppen upplevde en högre känsla av kontroll över behandlingen och hade en större effekt på förbättring av ångestsymtom i jämförelse med standardbehandlingen. Resultaten visade vidare på ett medelstarkt samband mellan förändring i ångestsymtom under behandlingens gång och förändringar i skattad känsla av "empowerment" (på svenska ungefär "egenmakt"). Detta skulle kunna indikera att de deltagare som upplever sig stärkta utifrån skattningar på empowerment också förbättrats mer i sin ångest, eller tvärtom att de som förbättrats mer i sin ångest också upplever sig vara mer "empowered". Resultaten kan dock inte tolkas utifrån ett orsakssamband då studien endast tittade på samband, men kan indikera att empowerment skulle kunna vara en viktig mekanism att stödja i behandling, och det är något som kan undersökas i framtida studier.

Studie III var en randomiserad kontrollerad studie (RCT) som utvärderade effekten av en internetbaserad ACT-behandling för ungdomar med ångest. Deltagarna ($n=52$) bestod av ungdomar som själva hade sökt till behandlingen och de rekryterades från hela Sverige. Deltagarna lottades till antingen en behandlingsgrupp, som tog del av behandlingen under tio veckors tid, eller till en väntelista. Resultaten visade att behandlingen var effektiv för att öka deltagarnas livskvalitet och psykologiska flexibilitet. Behandlingen hade också en positiv effekt på uppfyllda diagnoskriterier efter behandling och deltagarna i behandlingsgruppen uppfyllde i högre grad inte längre kriterier för sin ursprungliga ångestdiagnos efter behandling. Ingen skillnad mellan grupperna syntes dock utifrån självskattade ångestsymtom. Ett starkt samband sågs mellan förändringar i psykologisk flexibilitet och förändringar i ångestsymtom under behandlingens

gång, vilket kan indikera att psykologisk flexibilitet kan vara en viktig mekanism att stödja under behandlingen. Likt Studie II kan dock inte resultaten visa på några orsakssamband då studien endast undersökte korrelation mellan de två variablerna, men resultaten kan vägleda framtida studier i att titta närmare på detta samband.

Studie IV bestod av en psykometrisk utvärdering av en skattningsskala för att mäta ”empowerment” hos patienter med psykisk ohälsa. Studien undersökte den strukturella validiteten, dimensionaliteten och den interna konsistensen av den svenska versionen av skattningsskalan ”Empowerment Scale - Making Decisions” i två populationer av patienter som vardera hade rekryterats från primärvård ($n=210$) och psykiatri ($n=221$). I studien användes konfirmatorisk faktoranalys (CFA) för att jämföra faktorstrukturen i de två populationerna med faktorlösningar som har hittats i tidigare studier. Resultaten visade att ingen av faktorlösningarna från tidigare forskning kunde bekräftas i de två urvalen av patienter från svensk primärvård- och psykiatrisk vård. Resultaten visade därtill på dålig passform för en enfaktorslösning, vilket indikerar att det är tveksamt om skalan representerar ett enda empowerment-konstrukt och att skalan snarare mäter flera relaterade och närliggande begrepp. Resultaten belyser och bekräftar komplexiteten i empowerment-begreppet, som är ett mångfacetterat begrepp som är uppbyggt av flera olika och relaterade aspekter och som har använts i olika forskningsfält och under olika tidsperioder, och följaktligen också svårigheterna att mäta det.

Slutsats: I primärvårdens uppdrag ingår att öka patientdelaktighet och att ge patienterna möjlighet att utöva inflytande över deras egen hälsa och vård. Forskningsstudierna som ingår i den här doktorsavhandlingen kan tillsammans bidra med kunskap för att utveckla området kring internetbaserad psykologisk behandling, genom att visa på hur patientinflytande kan förstås och integreras i behandlingen. Genom att integrera behandlingskomponenter och influenser utifrån ACT, låta patienters egna värderingar bli vägledande i deras sjukvård, tillämpa patientdrivna komponenter genom att låta patienter få inflytande över upplägget på behandlingen, och göra patienters kunskaper och erfarenheter till en del av behandlingen och sjukvården i stort, understryker avhandlingen potentialen för att förbättra behandlingsresultat och livskvalitet samt främja psykologisk flexibilitet, samhörighet och känsla av kontroll över sin vård. Resultaten betonar också behovet av att i framtida forskning begreppsliggöra vad ”empowerment” innebär i en primärvårds- och digital behandlingskontext.

Alla utom en studie i föreliggande avhandling inkluderar deltagare utifrån patienter som har rekryterats i det naturliga patientflödet i primärvården, vilket medför att avhandlingens bidrag är av direkt kliniskt intresse för behandlare, chefer och ledningsfunktioner som arbetar inom primärvården. Genom att utforska distinkta dimensioner av patientinflytande i relation till internetbaserad psykologisk behandling bidrar varje studie med unika perspektiv som tillsammans berikar förståelsen för effektiva behandlingsstrategier, genomförbarhetsöverväganden och möjligheter till förbättringar. De explorativa och innovativa studierna i avhandlingen utgör tillsammans en grund för framtida forskning och utveckling av internetbaserade behandlingar för psykisk ohälsa, och banar väg för personcentrerade och skräddarsydda tillvägagångssätt.

List of papers

This thesis consists of a summary and the following four papers, which are referred to by their roman numerals:

- I. Nissling, L., Fahlke, C., Lilja, J. L., Skoglund, I., & Weineland, S. (2020). Primary care peer-supported internet-mediated psychological treatment for adults with anxiety disorders: Mixed methods study. *JMIR Formative Research*, 4(8), e19226. <https://doi.org/10.2196/19226>
- II. Nissling, L., Kraepelien, M., Kaldø, V., Hange, D., Larsson, A., Persson, M., & Weineland, S. (2021). Effects of patient-driven iCBT for anxiety in routine primary care and the relation between increased experience of empowerment and outcome: A randomized controlled trial. *Internet Interventions*, 26, 100456. <https://doi.org/10.1016/j.invent.2021.100456>
- III. Nissling, L., Weineland, S., Vernmark, K., Radvogin, E., Engström, A. K., Schmidt, S., Nieto Granberg, E., Larsson, E., & Hursti, T. (2023). Effectiveness of and processes related to internet-delivered acceptance and commitment therapy for adolescents with anxiety disorders: A randomized controlled trial. *Research in Psychotherapy (Milano)*, 26(2), 681. <https://doi.org/10.4081/ripppo.2023.681>
- IV. Nissling, L., Lindwall, M., Kaldø, V., Larsman, P., Hansson, L., Fröjd, S., Bendix, M., & Weineland, S. (submitted manuscript). Empowerment in primary care and psychiatric settings: A psychometric evaluation of the Swedish version of the empowerment scale.

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*There is probably purpose and meaning in our journey
but it is the pathway there, which is worth our while.
(from the poem "In Motion" by Karin Boye, translated by Jenny Nunn)*

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Introduction

Anxiety is a common mental health problem

The term “common mental disorders” refers to depression disorders, anxiety disorders, and stress-related disorders, all highly prevalent mental disorders (World Health Organization, 2017). Approximately one person in five has a common mental disorder annually, and close to 30% have a common mental disorder during their lifetime (Steel et al., 2014). Common mental disorders entail great personal suffering and loss of functioning. Depression is considered the single largest contributor to non-fatal health loss, whereas anxiety disorders are collectively ranked as the sixth contributor (World Health Organization, 2017).

The term “anxiety disorders” refers to several distinct mental disorders, including generalized anxiety disorder (GAD), panic disorder, phobias, obsessive-compulsive disorder (OCD), post-traumatic stress disorder (PTSD), and social anxiety disorder (World Health Organization, 2017). In 2015, an estimated 3.6% of the global population, or 264 million people, were living with an anxiety disorder. This can be compared to an estimated 4.4% who had a depressive disorder. Anxiety and depression disorders frequently occur simultaneously, making comorbidities between these conditions high (World Health Organization, 2017).

Anxiety is, moreover, the most common mental health disorder among children and adolescents (Beesdo et al., 2009). Compiled numbers show that more than half of those diagnosed with an anxiety disorder had their onset before the age of 18, and around a third before the age of 14 (Solmi et al., 2022). Untreated anxiety in childhood is associated with poorer mental health and psychopathology in adulthood and with an increased risk of comorbid conditions such as depression (Beesdo et al., 2009).

Anxiety disorders are most effectively treated with psychopharmacological medication and/or psychological treatment in the form of cognitive behavioral therapy (CBT; National Board of Health and Welfare, 2021; National Institute for Health and Care Excellence, 2011; Swedish Council on Technology Assessment in Health Care, 2005). However, globally, most people with mental illness do not receive evidence-based psychological care (Holmes et al., 2018; Wang et al., 2007), which is equally evident in youths with mental health problems (Patel et al., 2007). One major problem is the limited access to evidence-based psychological treatments within health care (Kohn et al., 2004). This is largely because of the limited availability of trained psychologists and psychotherapists (Bower & Gilbody, 2005). Moreover, psychotherapy is provided mainly in high-income countries, which leads to inequalities in who receives

care (Holmes et al., 2018). Additional problems include individuals' worries about stigma and avoidance as well as a lack of recognition and poor detection of mental health disorders in primary care, which is usually the first care contact (National Institute for Health and Care Excellence, 2011).

Primary health care

Primary health care is the first line of health care in many countries, including Sweden. The care provided by primary health care ranges from preventive to active, rehabilitative, and palliative care and addresses all ages and health needs (World Health Organization and the United Nations Children's Fund (UNICEF)[WHO and UNICEF], 2018). Primary health care is grounded in principles of social justice, equality, and patient participation. The renewed declaration of 2018 for global primary health care states that the mission for primary care is to meet people's health needs throughout life, using evidence-based practices to identify and address important social, economic, environmental, and individual factors for health, as well as to empower patients to exert influence over and optimize their own health (WHO and UNICEF, 2018). The declaration calls for primary health care to encompass a whole-of-society approach and work to maximize health and well-being for as many people as possible based on close and equal care that is easily accessible. PHC should work towards empowering individuals, families, and communities for social participation as well as improved self-confidence about one's own health care (WHO and UNICEF, 2018).

In Sweden, primary care is also responsible for identifying and providing first-line care for mental illness (SOU, 2021:6). In recent years there have been increased demands on primary health care centers to administer early and evidence-based interventions for mental health disorders and to promote mental health. Investigations have increasingly identified and drawn attention to the problems that mental illness causes, and it is emphasized that mental illness is a large and growing social problem as well as the most common cause of sick leave (SOU, 2021:6). Figures on all patients admitted to local primary care centers in western Sweden show that 12% received a psychiatric diagnosis (Gervind et al., 2024).

With the renewed declaration of 2018 for worldwide primary health care, new directions are also put forward for primary care. As people around the world live longer, health care needs have changed; whereas the focus has primarily been on providing care for acute conditions, there is an increased need to provide treatment and care for more chronic and long-term conditions. New medical treatments have enabled a world where diseases that were historically fatal have now become long-term conditions that people can live with (WHO

and UNICEF, 2018). These factors place new demands on primary care, which today must meet more complex needs, provide more long-term care, and serve a larger and aging population (WHO and UNICEF, 2018). The new challenges also include common mental disorders, such as depression and anxiety disorders, which did not have the same societal focus when the health care system was developed (WHO and UNICEF, 2018). For example, more than half of primary health care patients (53.6%) presented with one or more common mental disorders, according to a large study, the most prevalent being affective disorders followed by anxiety disorders and somatoform disorders (Roca et al., 2009). A psychiatric comorbidity was found in around a third of the sample, with the most common comorbidity being depression and anxiety (19.5%; Roca et al., 2009). Similarly, another study found that 40% of primary health care patients presented with a psychiatric disorder, although only around 5% of the patients visited their primary care center specifically for their mental illness (Ansseau et al., 2004).

In Sweden, primary care is undergoing reform to align with society's evolving needs and patients' expectations of accessible and modern first-line health care. A 2016 Swedish government report emphasized that, in order to provide accessibility and proximity to the patient and to coordinate health care efforts in the light of more frequent chronic and complex conditions, Swedish health care must change from a system that has largely focused on providing emergency and highly specialized health care to one that more strongly emphasizes primary health care (SOU 2016:2). As a result of this, legislation was passed on a national mission for primary care to be responsible for the population's first contact with care regarding both preventive work and diagnostic assessments, treatment, and rehabilitation for most conditions, and to refer patients to specialized care when necessary. Primary care is also given overall responsibility for coordinating the patient's care needs (SOU 2018:39). Primary care thus becomes the natural first point for providing close and coordinated care to the population. Included in the restructuring is the goal of involving patients more in their own care, based on a person-centered approach (SOU 2018:39). Consequently, there has been a shift from seeing patients as mere passive recipients of care to active agents, or co-managers, in decisions regarding their own health care. The Swedish Patient law from 2014 stresses that the patient's position should be strengthened, and that health care should work to foster the patient's autonomy, participation, and integrity (SFS 2014:821). Policy documents for the restructuring of primary care highlight the need to involve patients in treatment decisions and to inform them of the care process as prerequisites for successful treatment (SOU 2018:39). The guidelines of Sweden's National Board of Health and Welfare (2020) state that "the decisive factor for good care is that the choice of treatment is based on the patient's individual

needs, conditions and wishes.” Moreover, there are calls for user participation and cooperation with patient organizations regarding strategic improvements and organizational development of health care (Swedish Association of Local Authorities and Regions, 2018).

Part of the restructuring of Swedish primary care includes an increased focus on digital solutions, with more digital care appointments, digital self-monitoring of symptoms at home, patients being able to book care appointments themselves via the internet, and the use of artificial intelligence (AI) to help in decision support (SOU 2018:39). In this way, primary care will become more digital and closer to patients, with a greater focus on health promotion work. Digital solutions may also play a part in making patients more involved in their own care. They create increased opportunities for those patients who want to take greater responsibility for their own care, while more supportive interventions and physical appointments can be provided to those who need and request them (SOU 2018:39).

Person-centered care

Person-centered care has been advocated in recent decades, including in primary health care. Person-centered care is understood as care provided through collaboration between patients, their families, and health care professionals (Britten et al., 2020). It involves providing coordinated care that is individually tailored to the patient’s needs, circumstances, and preferences (The Health Foundation, 2016). It indicates a need to look beyond diagnosis and illness and focus on the patient as a person and to personalize care rather than just follow certain routines or a certain flow of care linked to a diagnosis. Person-centered care is also enabling; it empowers patients to recognize their own abilities to live independently. The health care professional and the patient work together in partnership when making treatment decisions, and they seek to identify and adapt the care plan based on the patient’s goals and long-term values (The Health Foundation, 2016).

Providing person-centered care is also consistent with working in line with evidence-based practice (EBP), which guarantees efficient and safe care (American Psychiatric Association, 2006). Evidence-based practice rests on three pillars that inform decisions on medical interventions: the best available knowledge based on scientific research; best practice and the professional’s expertise; and the individual patient’s situation, experiences, and preferences (American Psychiatric Association, 2006). The three pillars building up evidence-based practice make it a broader term than “evidence-based treatments” (EBT), a term that refers to specific treatment techniques or interventions that have proven effective in randomized controlled trials (Kazdin, 2008). The

distinction is important because even if a treatment is effective in research environments, it will not necessarily work for the individual patient. A treatment is considered evidence-based if, in randomized controlled trials (RCT), it has been possible to show that there are statistically significant differences in outcomes between the group that has received the treatment compared with a no-treatment control or treatment as usual. However, statistical significance is also a result of factors such as sample size and variability within and between research participants. Hence, the fact that a treatment has been shown to produce statistical differences between groups in controlled research settings does not necessarily mean that the difference will be reflected in the individual research participant's everyday functioning and life, nor that the results can be translated to patients in clinical practice (Kazdin, 2008). Although a treatment might have a satisfactory effect, it is equally important for it to suit the target group's treatment preferences, and the treatment method, psychotherapist, patient, and context together interact in producing the outcome (American Psychiatric Association, 2006). Therefore, evidence-based practice includes basing medical decisions not solely on research on evidence-based treatment methods or interventions, but equally on clinical expertise and, moreover, on the person's unique experiences, context, and preferences.

Although person-centered care has been advocated in health care and primary care for a long time, there is still no structured definition for it, and therefore individual health care professionals, patients, and stakeholders may have their own understanding of what it means and how best to achieve it in clinical practice (Jørgensen & Rendtorff, 2018). Terms such as patient participation, patient engagement, patient/user involvement, patient empowerment, shared decision making (SDM), and person-centered care, which all refer to the patient's active role in their own health care, are used simultaneously and interchangeably (Hickmann et al., 2022; Jørgensen & Rendtorff, 2018). Moreover, although most caregivers endorse a person-centered approach, few apply it systematically and consistently, including in Sweden (Ekman et al., 2011). For example, a national Swedish survey from the SOM Institute in collaboration with the Center for Person-Centered Care at the University of Gothenburg (GPCC) showed that the respondents in general wanted to have more influence over their own health care. Around a third felt that they had little opportunity to be involved in planning their own care, and a quarter perceived that they had not received sufficient information to participate in decisions regarding their own health care (Wallström et al., 2016). Sweden also ranks low in international comparisons with countries within the Organization of Economic Cooperation and Development (OECD) in terms of patients' experiences of participation in care (Swedish Agency for Health and Care Services Analysis, 2021). Health care staff report various challenges when striving to adhere to a

person-centered approach in their work. For example, they require extra time to explore the patient's needs and wishes, and they may have doubts as to whether all patients, for example, those with serious illness, are able to participate actively. Health care professionals may also be unaccustomed to focusing on patients' strengths and abilities rather than on their symptoms and problems (Jørgensen & Rendtorff, 2018).

A proposed prerequisite for patient participation is the concept of health literacy. It is defined as the patient's ability to receive health information and to understand and act on it (Mårtensson & Hensing, 2012). Health literacy is considered important for enabling patients to make decisions about their own health care. Rather than seeing it as a static characteristic that differs according to individual abilities, health literacy can also be understood as a complex phenomenon that is influenced by social and cultural contexts and that is created in interactions between patients, health care professionals, and society at large. Caregivers and health care professionals thus need to become more actively aware of how their own part in the meeting with a patient contributes to the patient's level of health competence in a specific situation. The patient's ability to actively participate and make well-founded decisions about their own care requires that they be given opportunities to receive information as well as enough time to discuss it and ask questions in the meeting with the health care professional. In addition, patient participation needs to be actively encouraged both in the individual care meeting and in the workplace at large (Mårtensson & Hensing, 2011). However, there is a general lack of information and tools to support patients in making choices about their health, although "decision-aid" tools have recently been developed in the United Kingdom, for example, to ensure that medical decisions and treatment reflect patient preferences and personal values and that patients are well informed about their treatment and possible support options (NHS England, n.d.-a). Examples of other structured initiatives to elicit person-centeredness within health care include the Gothenburg model of person-centered care in Sweden (Britten et al., 2020) and the NHS's personalized care and support planning in England (NHS England, n.d.-b). Most recently, a draft guideline on recommendations for treatment of depression was presented by the National Institute for Health and Care Excellence (NICE) in the United Kingdom, whereby patients, in discussion with their health care practitioner, could choose from a menu of different evidence-based treatment options according to their own preferences (National Institute for Health and Care Excellence, 2021). The University of Gothenburg Centre for Person-Centered Care in Sweden has proposed three cornerstones for working according to person-centered care in practice: creating a partnership by listening to the patient's narrative about their illness and symptoms and how they impact the patient's daily life; developing the partnership by together

formulating a health plan through shared decision making; and safeguarding the partnership and continuity of care by documenting the health plan and making patients' preferences and values transparent (Ekman et al., 2011). Another approach is the development of an assessment instrument to measure the extent to which a person-centered approach is applied within the individual care meeting. The assessment is based on observation, where an observer rates the meeting based on about 50 questions related to person-centered care, such as whether the patient is getting an opportunity to voice their opinion, how attentive the health care professional is to the patient, and whether goals for the treatment have been defined (Ekman, 2023). Yet another attempt to concretize a person-centered approach to care involves the use of "patient contracts", which aim to deepen patient participation through a co-production between the patient and the health care professional. With a patient contract, the patient and caregiver agree on a coherent plan, the patient gets a fixed care contact, and meeting times are agreed upon in consultation. The aim is to increase participation, coordination, accessibility, and cooperation (Swedish Association of Local Authorities and Regions, 2022).

Importantly, patient participation and person-centered care are not the same as demand-driven care. As stated in the Swedish government policy document for the renewed primary care, the professional must not simply provide care based on the patient's wishes if this is completely contrary to science and best practice (SOU 2018:39). Nor can medical care be provided at any time based on the patient's wishes; it must be based on a priority order where emergency medical care comes before less urgent care. In this way, citizens can rely on receiving the right and effective care at the right time without being either over- or undertreated (SOU 2018:39).

The stepped care model and low-intensity treatments

One of the biggest concerns with regard to the treatment of mental health problems, both internationally and in Sweden, is the lack of resources, with too few educated and trained professionals with specific expertise in the field of mental health (Holmes et al., 2018; SOU 2018:39). One proposed solution to the limited access to evidence-based psychological care is the stepped care model (Bower & Gilbody, 2005). In this model, the first recommended treatment should be the least intensive one, often interpreted in terms of the amount of therapist time required, that will still lead to increased health. At the same time, the stepped care model should be self-correcting, meaning that treatment gains are systematically monitored, and patients are offered an intervention higher up in the model if the current intervention does not lead to improvement (Bower & Gilbody, 2005). Under this model, most patients are initially treated

with so-called low-intensity treatments, and common high-intensity treatments such as face-to-face CBT are reserved for patients who fail to respond to treatments within the first steps of the model. However, high-intensity treatments may be offered in a first step to patients where low-intensity treatments are deemed inappropriate, for example, due to initial severity of the mental health problem, or in cases where adverse effects may result from starting a patient at a too-low step, such as an eating disorder (Bower & Gilbody, 2005). However, some evidence suggests that patients with severe depression may gain as much benefit from low-intensity treatments as patients with mild and moderate depression (Bower et al., 2013). This was also true in a sample of adolescents with anxiety disorders, where greater baseline severity in both anxiety and depression predicted greater improvement (Stjerneklar et al., 2019). Low-intensity treatments are often based on cognitive behavioral therapy (CBT) and may consist of, for example, self-help material or group therapy (Bower & Gilbody, 2005). A common low-intensity treatment is internet-delivered cognitive behavioral therapy (ICBT; Bower et al., 2013). Since 2016, Sweden has been working to expand the integration of ICBT into primary care (Swedish Association of Local Authorities and Regions, 2021).

Internet-delivered cognitive behavioral therapy (ICBT)

Internet-delivered cognitive behavioral therapy (ICBT) delivers evidence-based psychological treatment, including self-help, on a secure internet platform offering psychoeducative elements through texts, videos, and audio clips, together with exercises of psychological strategies and home assignments (Andersson, Titov et al., 2019). ICBT can be delivered with or without therapist support, which can be either asynchronous, using written messages on the treatment platform, or synchronous, via telephone or a chat function. In most RCT studies the guidance typically consists of weekly scheduled feedback through written messages from the therapist and opportunities for the patient to ask questions (Andersson, Titov et al., 2019). Therapist-guided internet interventions have generally been shown to be more effective for symptom reduction and completion of treatment than unguided programs (Baumeister et al., 2014).

ICBT has been developed during the last 25 years (Andersson, 2018). ICBT presents several advantages in terms of accessibility and thus may bridge the gap between mental health needs and accessible evidence-based psychological treatments. The internet-based form of the treatment generally requires less time of the therapist, it can bridge geographical distances between patients and health care providers, and it provides flexibility for the patients in terms of when they can obtain the treatment. By providing anonymity, it may also

decrease potential feelings of stigma associated with visiting a care clinic (Andersson, Titov et al., 2019; Ralston et al., 2019).

ICBT has been found cost-effective and related to lower health care and societal costs compared to, for example, group CBT therapy, treatment as usual, wait-list, and telephone counseling for several diagnoses, with the strongest evidence for guided internet interventions for anxiety disorders, according to one systematic review (Donker et al., 2015).

To date, studies on the efficacy of ICBT have been investigated in around 300 randomized controlled trials (RCT) as well as in systematic reviews and meta-analyses (Andersson, Titov et al., 2019). ICBT has been found effective for several psychiatric conditions when compared to control groups, including depression, different anxiety disorders, and PTSD as well as some somatic conditions such as insomnia, chronic pain, stress, and tinnitus (Andersson, Titov et al., 2019). In an individual patient data meta-analysis of aggregated data from 2866 patients with anxiety, depression, and other diagnoses (such as erectile dysfunction, relationship problems, and gambling disorder) from 29 clinical trials conducted in Sweden, around half of the participants improved (responded to treatment) following therapist-guided ICBT, and around a third were considered in remission, that is, within a non-clinical state (Andersson, Carlbring, & Rozenenthal, 2019). The benefits of ICBT also seem to be sustained over time (Andersson et al., 2018). In addition, at least two meta-analyses conclude that therapist-guided ICBT produces effects equivalent to those of face-to-face CBT (Carlbring et al., 2018; Hedman-Lagerlöf et al., 2023). When it comes to anxiety disorders alone, several systematic reviews and meta-analyses show evidence for therapist-guided ICBT for anxiety and suggest that it may not be different from face-to-face therapy, although studies of better quality are needed (Andrews et al., 2018; Kumar et al., 2017; Olthuis et al., 2016). Less research exists on the efficacy of ICBT for children and adolescents, but promising results have been documented (Ebert et al., 2015; Lilja et al., 2021; Vigerland et al., 2016).

Much research is done in controlled contexts where conditions are as close to ideal as possible, with rigorous research designs and strict selection of participants, in so-called efficacy studies (Möller, 2011). These studies have high internal validity, but they might lack external validity as the ideal research conditions do not accurately simulate the real world. Effectiveness studies, in contrast, are conducted in naturalistic clinical settings (Möller, 2011). Many studies on ICBT are efficacy studies, and more studies on ICBT performed within routine clinical care are needed (Olthuis et al., 2016). However, some effectiveness studies have been conducted and show support for ICBT in clinical settings. A meta-analysis of RCT studies performed in routine clinical care showed an overall large impact on both anxiety disorders and depression, with

all assessed effect sizes being at least moderate (Etzelmueller et al., 2020). Therapist-guided ICBT has been shown to be effective for social anxiety disorder (SAD), with sustained effects 4 years after treatment in patients treated within routine psychiatric care (El Alaoui et al., 2015), for depression in patients treated in primary and psychiatric care (Flygare et al., 2020), and in depressed patients in primary care with sustained effects 1 year after treatment (Eriksson et al., 2017), among others. Moreover, examples of successful implementations of central ICBT clinics in routine health care exist, including in Sweden, Norway, Denmark, Canada, and Australia (Titov et al., 2018). These clinics all report high patient satisfaction, clinical improvements, and low amounts of patient deterioration (Titov et al., 2018). Clinical trials from these clinics show therapist-guided ICBT to be successful in treating depression and anxiety, as well as insomnia, irritable bowel syndrome, and chronic pain. Therapist-guided ICBT also proved to be effective for patients with severe symptoms, as mean symptoms ranged between moderate to severe in trials from these clinics (Titov et al., 2018).

Although ICBT has been proven effective for several mental health problems, not all patients who receive ICBT improve. It has been suggested that around one fourth of those receiving ICBT do not respond to treatment (Rozental et al., 2019), although these figures are comparable to those of non-responders in face-to-face therapy (Luo et al., 2020). Relatedly, not all participants who take part in the treatment complete the full program, and the uptake of the treatment varies considerably between persons. Numbers on non-adherence to treatment are complicated due to inconsistency in the definition and reporting of completion rates (Etzelmueller et al., 2020). One meta-analysis analyzing data from just under 1000 participants taking part in either face-to-face therapy or internet-delivered CBT for depression found that 65% of the participants receiving internet-delivered treatments completed the whole treatment, which was significantly lower than in face-to-face therapy (84.7%; van Ballegooijen et al., 2014). However, when looking at percentages of completed modules, the ICBT group completed on average 80% of the treatment, and this did not differ significantly from the face-to-face group (van Ballegooijen et al., 2014). On the other hand, when looking at studies on ICBT for depression or anxiety performed within routine clinical care, the numbers were lower, with about 60% of participants completing the treatment as planned (full course) according to a meta-analysis (Etzelmueller et al., 2020). The average percentage of completed modules was 57.3% for ICBT for anxiety and 62.6% for ICBT for depression (Etzelmueller et al., 2020).

There is incomplete evidence on patient factors influencing non-adherence and drop-outs. Factors identified related to successful adherence include, for example, intrinsic motivation to complete treatment and perceiving the

treatment as credible (Alfonsson et al., 2016), while preferences for face-to-face interactions may work as a barrier (Holst et al., 2017; Johansson et al., 2015). Some patient characteristics that have been negatively associated with treatment completion include younger age, greater initial symptom severity, not being in a relationship, lower educational level, and multiple co-existing psychosocial difficulties (Cross et al., 2022). One study analyzing patient factors of a large sample of participants recruited from routine clinical care found that these factors were cumulative, for example, the more positive factors a patient presented, the greater the likelihood that they would start treatment, complete treatment, or improve with treatment (Cross et al., 2022). Some qualitative findings from an internet-delivered stress program for health care workers showed that participants generally reported several reasons for discontinuing treatment, including person-related factors such as lack of time, life circumstances, fatigue, and previous participation in treatment with similar content (Nomeikaite et al., 2023). Other reasons were related more to factors arising when taking part in the treatment, such as a perceived lack of fit with the treatment content and thus not perceiving the program as suitable; technical difficulties in accessing the treatment program; and negative experiences during the treatment, such as increased symptoms and self-critical thoughts (Nomeikaite et al., 2023). Similar reasons were reported in a qualitative study of non-adherence in an internet-delivered treatment for patients with generalized anxiety disorder (Johansson et al., 2015). The authors proposed a dyadic model where treatment-specific aspects such as the time needed for treatment, complexity and extensiveness of the text content, and the fixed treatment arrangement do not align with personal aspects such as daily routines, level of concentration and reading capacities, and expectations of treatment. The last item mentioned was salient in that participants expressed that they had little understanding of what the treatment content and process would entail (Johansson et al., 2015).

A third wave approach to cognitive and behavioral therapies

Research in psychology to date has mainly been focused on evaluating different treatment methods targeting different diagnoses (Hayes & Hofmann, 2021; Kazdin, 2008). Cognitive behavioral therapy (CBT) has been included as one effective evidence-based treatment for mental health conditions in a variety of research-based treatment protocols targeting various DSM-defined psychiatric disorders, including various anxiety disorders (Hayes & Hofmann, 2021). The *Diagnostic and Statistical Manual of Mental Disorders* (DSM; American Psychiatric Association, 2013) and similar diagnostic classification systems of mental disorders, such as the International Statistical Classification

of Diseases and Related Health Problems – ICD (World Health Organization, 2019), arise from the medical field, where diseases have a clear etiology. Similar symptoms arise from a common underlying cause; for example, a tumor which causes symptoms of cancer. However, to date, for all but a few mental disorders, no laboratory markers have been found that identify a common underlying cause of a specific mental illness as defined by the DSM, and epidemiological studies show excessive comorbidity between the disorders (Kendler, 2012). It is a matter of course in psychological science that mental illness is affected by several different factors, where biology, psychology, and environmental factors interact. The assembled research shows that risk factors present themselves at all these levels (Kendler, 2012). Consequently, this has brought about questions as to whether the defined disorders should even be understood as distinct entities. Several new attempts to understand mental illness have emerged in recent years that counteract the medical view of mental health problems as distinct diseases. A recent approach that tries to solve the limitations of the diagnostic systems is “the network theory of mental disorders,” which postulates that psychiatric symptoms cause each other rather than being the result of a common cause or “disease” (Borsboom, 2017). The network theory is neutral regarding the etiology of the causal relationships between symptoms, and these may be derived from biological, psychological, or social processes, or through interactions between these processes. Network theory also explains the excessive comorbidities that exist between diagnoses, since when one symptom is activated the probability that another, related, symptom will activate increases. Moreover, through “feedback loops,” the network can become self-sustaining, in that symptoms keep each other activated even when an external trigger has disappeared (Borsboom, 2017). Other approaches include, for example, the Hierarchical Taxonomy of Psychopathology (HiTOP), which characterizes psychopathology as dimensions that cut across the dichotomous categories of different diagnoses in the traditional diagnostic systems (Conway et al., 2019). The HiTOP theory uses the general factor of psychopathology (*p-factor*, compare to the *g-factor* for intelligence), which theorizes that there is a general genetic predisposition for developing psychopathology. The model also theorizes a hierarchical structure, and the *p-factor* can further be broken down into lower spectrums of, for example, internalizing, externalizing and somatoform disorders, with common characteristics. The *p-factor* could also be used to predict the likelihood of a current patient developing future mental health problems (Conway et al., 2019).

The medical view of psychiatric illnesses has nevertheless influenced treatment guidelines and the organization of care into subspecialized diagnostic teams. The treatment given is based on diagnosis-specific guidelines where all patients with the same diagnosis are recommended the same standardized

treatments. The diagnosis thus determines which treatment is given, rather than the patient's individual conditions, experiences, and preferences (Holmqvist & Herlofson, 2019).

Acceptance and commitment therapy

A process-based approach

Acceptance and commitment therapy (ACT) is a method within the new generation of CBT therapies, the so-called third wave of development of CBT (Hayes, 2004). Characteristic of ACT is its *process focus* based on a well-developed theoretical foundation concerning common and underlying mechanisms assumed to affect therapeutic change (Hayes et al., 2022). Process-based therapies step away from syndrome-based protocols that each target specific diagnoses and towards so-called *transdiagnostic protocols*. Less focus is placed on specific protocols for each mental condition and more is placed on common factors that lead to change across the different diagnoses (Hayes & Hofmann, 2021). Although several effective psychological treatments exist, little is still known about how psychological treatments work (Cuijpers, Reijnders, & Huibers, 2019). By revealing the processes through which therapy works, new treatment methods that focus on core processes in therapy might develop. Treatment may be adapted to specific contexts or populations by designing interventions that specifically target the mechanisms of change. This might not only create more efficient treatments but may also facilitate the synthesizing of research on different treatment methods (Cuijpers, Reijnders, & Huibers, 2019). It may provide answers to whether different treatment methods work through specific or similar processes and, if the latter is the case, bridge the gap between different treatment methods and pave the way for transdiagnostic treatments (Hayes & Hofmann, 2021; Kazdin, 2008). Thus, instead of speaking of evidence-based treatments we might be able to speak about “evidence-based mechanisms of change” (Kazdin, 2008).

The study of mechanisms of change may also provide answers regarding which treatment methods work best for which individuals and thus form the basis for person-centered care and tailored treatment methods. By recognizing which factors in treatment contribute to change, clinicians will gain knowledge about what aspects of the treatment can be promoted to facilitate change for the patient in front of them and to improve response to treatment and patient adherence (Kazdin, 2008). It is by answering these questions that treatment methods can be improved, and research may contribute to optimizing the clinical practice.

An acceptance focus

ACT builds on the core principles of CBT, such as behavioral change processes and exposure to avoidance of thoughts, feelings, and situations, but it extends traditional cognitive behavioral therapy by focusing on acceptance and mindfulness techniques (Hayes et al., 2013). It is developed based on an extensive theoretical foundation on the distinct philosophy of *functional contextualism* and a science of cognition, namely, *relational frame theory* (Hayes et al., 2013). ACT theory argues that human suffering lies in an unwillingness to remain in contact with private experiences and an inability to maintain flexible behavior and engage in values-based action (Hayes et al., 1996). Based on the relational frame theory of cognition, it argues that much private suffering comes not only from direct learning experiences but also from the way humans use language, and thereby thoughts, to derive conclusions (Twohig & Levin, 2017). According to relational frame theory, humans build up their understanding of the world by relating objects and events to each other. These relational frames between objects and events are not necessarily based on formal properties but may also be formed based on arbitrary cues derived from language and context (Hayes et al., 2013). ACT theory thus postulates that verbal-rule governance and avoidance are two processes involved in much of psychopathology and mental illness (Hayes et al., 2022). For example, a depressed patient might let self-critical thoughts such as “I am unlovable” lead to social withdrawal, thereby losing contact with the present moment and missing out on alternative experiences and signs of being liked (Twohig & Levin, 2017). This is by no means opposed to the views of traditional CBT, which also recognize the significance of behavioral avoidance in creating mental ill health (Hayes et al., 2013). Likewise, the view in traditional CBT is that it is not life events in themselves that cause mental distress, but rather the way we interpret those events. However, the approach for addressing this problem differs between traditional CBT and ACT. In traditional CBT, the focus lies on helping the patient identify and *change* negative and distorted thoughts by replacing these with more rational and constructive ways of thinking. This can be done through interventions such as cognitive restructuring, where the therapist helps the patient question the thought and come up with alternative explanatory models. Conversely, the ACT approach emphasizes that it is difficult to completely and permanently restructure cognitive networks and relational schemas. Instead, the ACT method aims to help the patient change the *functional context* of the inner experiences such as thoughts and feelings; that is, it tries to change the influence that distorted thoughts exert on the patient’s life rather than trying to correct the content of the thought. In practice, this can be achieved by mindfulness and acceptance-based interventions, such as teaching the patient to notice and acknowledge the thought without judging or trying to alter it. The ACT

therapist tries to help the patient create distance from the thought, helping them see that “I am having a thought that I am unlovable,” and thus creating flexibility and choice in how to respond to the thought (Hayes et al., 2013).

The theoretical foundation of ACT, based on the philosophy of functional contextualism, also has implications for how interventions are used (Twohig & Levin, 2017). According to functional contextualism, a scientific idea is considered true if it is helpful in predicting and altering behavior, thus it is based on pragmatism. Consequently, the therapy method constitutes of a set of principles rather than a set of techniques, and the ACT therapist can flexibly apply the model. The function rather than the form of the technique is considered when forming behavioral change. The therapist is oriented to the idea that any technique is just one method to help the client and therapist accomplish their goals (Twohig & Levin, 2017; Hayes et al., 2013).

Increasing psychological flexibility

The goal of ACT is not primarily to reduce or regulate symptoms or negative internal states but to promote functioning and well-being (Hayes et al., 2013). Symptom reduction might, however, be a result when increasing functioning, as many studies on ACT treatment also show treatment effects on symptoms (Gloster et al., 2020). The primary goal of ACT, however, is to improve the patient’s *psychological flexibility*, which is defined as the ability to act flexibly, by persisting in or changing behavior, based on the situation and in the service of long-term values (Hayes, 2004). In other words, the focus is on helping the patient increase engagement in valued activities, regardless of distressing thoughts, feelings, or internal states that may be present or arise in this context. Six essential processes are integrated to build psychological flexibility: acceptance, defusion, flexible attention to the present moment, “self-as-context” or a perspective-taking sense of self, value-based living, and committed action (Hayes, 2004). The first four processes can be grouped together as “acceptance and mindfulness” processes and aim to reduce the influence of difficult inner experiences that make it hard to act from a value-based direction. The goal is for the patient to be able to be in touch with their inner experiences, to be able to learn from them when they are useful, and to not let them control their behavior (Twohig & Levin, 2017). The last two processes can be grouped together as “behavior change” processes, and they involve determining values and direction for behavioral change. The process for achieving behavioral change involves more traditional CBT interventions, with the goal of helping the patient accomplish behavioral change in alignment with their personal values (Twohig & Levin, 2017). The six core processes can be targeted by different ACT interventions to enable a positive treatment change (Hayes, 2004).

Effectiveness of ACT

A meta-analytic review including 20 meta-analyses based on 133 individual studies found that ACT is effective for several diagnoses, including anxiety, as well as depression, substance abuse, and chronic pain when aimed transdiagnostically, with effect sizes from small to medium (Gloster et al., 2020). The effect sizes were on average larger when compared to non-active (wait-list, $g = 0.57$, corresponding to a medium effect) or passive (placebo, $g = 0.54$, corresponding to a medium effect) conditions and were shown to be non-significantly different or in some cases superior to active control conditions such as treatment as usual ($g = 0.46$, corresponding to a small effect) and active interventions other than CBT ($g = 0.57$, corresponding to a medium effect). When compared to CBT, most meta-analyses found that ACT was not statistically different from CBT, with an average negligible effect size ($g = 0.16$). Considering that the aim of ACT is to enhance functioning rather than symptom relief, ACT also showed efficacy within a small to medium effect size range on quality of life and measures of well-being, and effect sizes ranging from small to large for psychological flexibility (Gloster et al., 2020)

Also, there is an emerging research base where psychological flexibility has been evaluated as a mechanism of treatment change. Many of the early studies were of a correlational nature but generally showed a moderate relationship with psychological outcomes, broadly defined (Hayes et al., 2006). A systematic review of 12 studies using formal mediation analyses found general support for psychological flexibility as mechanism of change mediating the treatment outcomes for mental health symptoms (Stockton et al., 2019). When looking at the specific core components that together build up psychological flexibility, acceptance and cognitive defusion were the most researched processes, while the other four processes have not been much studied. The most consistent support was found for acceptance, which seems to be a unique mechanism of change for ACT when compared to other psychotherapies (mostly CBT) and which mediated treatment change across all outcomes being studied, that is, mental health, patient functioning, health-related behaviors, and quality of life. Most studies examining cognitive defusion and committed action found a significant mediation result, suggesting that these are also fruitful mechanisms of change in treatment, but they did not consistently mediate the effect between psychotherapy type and so may not be unique aspects of ACT treatment. Although these studies give initial support for psychological flexibility as an important mechanism of change in producing clinically relevant change, more studies of high quality are needed to address some of the methodological limitations of the included studies. Further, future research needs to focus on all six of the core processes in the psychological flexibility model; many measurements developed to assess psychological flexibility that

exist currently include only some of the key facets of this concept (Stockton et al., 2019). A recent literature review examined successful mediation processes across more than 54 000 randomized controlled studies of psychological interventions for various mental health outcomes (Hayes et al., 2022). Fifty-seven successful mediators of outcome were identified across the studies, and psychological flexibility and mindfulness were the far most common replicated mediators. These two aspects together accounted for about 45% of successful mediators that have been examined across studies to date (Hayes et al., 2022).

Other examples of research on psychological flexibility include a study by Stabbe and colleagues (2019), which used a person-centered approach and found six different profiles of individuals based on their functioning with regard to psychological flexibility. Groups with higher flexibility had greater well-being, and the presence of inflexibility in groups was associated with lower functioning, such as greater psychological distress, rumination, and physical ill-health (Stabbe et al., 2019). Recent studies on the impact of the COVID-19 pandemic have, moreover, shown preliminary support for psychological flexibility as a resilience factor in mental health during the pandemic (Kroska et al., 2020; McCracken et al., 2021).

Internet-delivered ACT

Based on successful results of internet-delivered CBT, there has been increased interest in delivering other branches of psychological therapy via the internet (Andersson, Titov et al., 2019), including internet-delivered acceptance and commitment therapy (iACT; Kelson et al., 2019). ACT in the context of internet-delivered treatments is a relatively new research field. A systematic review of internet-delivered ACT for anxiety disorders identified 20 existing studies, about half of which were randomized controlled trials, the rest being uncontrolled feasibility studies (Kelson et al., 2019). All of the studies were published after 2012. Eighteen of the 20 studies showed preliminary effectiveness for internet-based ACT with small to large anxiety reductions, but there is a great need for more high-quality RCT studies. Moreover, none of the studies targeted children or adolescents (Kelson et al., 2019). Yet another recent meta-analysis examined the results from 53 randomized controlled trials comparing online ACT (mostly delivered through websites and some delivered as apps) to either wait-list control conditions or to active conditions (treatment-as-usual, internet-delivered CBT, or placebo; Klimczak et al., 2023). Results showed small and significant between-group effects for online ACT compared to wait-list controls at post-treatment regarding outcomes for anxiety, depression, quality of life, and psychological flexibility and when looking at all assessed outcomes together. Effects were maintained at follow-up for all outcomes except for quality of life. When comparing online ACT to active

controls, significant between-group effects were found for psychological flexibility and for all outcomes together, but not for the other assessed outcomes, and no between-group effects were found at follow-up. The meta-analysis was limited by the heterogeneity among assessed studies, such as problem targeted, delivery format, and amount of human support, and it additionally found indications for publication bias for the studies using wait-list control conditions (Klimczak et al., 2023). Taken together, internet-delivered ACT seems like a promising intervention that could be further investigated.

Personalization of psychological treatments

The focus on classification of syndromes and a quest to find treatment methods targeting each syndrome as defined by diagnostic classification systems such as *DSM* has resulted in a variety of methods and interventions sprung from different theoretical schools that all work from their own theories about effective psychological treatment and use their own theoretical concepts. Consequently, there is a well-grounded research base for the efficacy of many different branches of psychotherapy; however, surprisingly, there seems to be generally little difference in outcome between different psychotherapy methods (Luborsky et al., 2002). For example, results from a review of 17 different meta-analyses of studies comparing one psychotherapy treatment against another for patients with anxiety, depression, and mixed neurosis found a mean effect size of Cohen's $d = .20$, corresponding to a small and insignificant effect (Luborsky et al., 2002). This fact has been known as the “dodo-bird verdict” (from Lewis Carroll's novel *Alice in Wonderland*, where the bird's verdict on a race read “everybody has won, so all shall have prizes”; Mulder et al., 2017).

One way of interpreting evidence on the equal outcomes across psychotherapies is that some psychological treatments may be more effective for some patients than others. Different responses to different treatments in individuals may even out at the group level. Even the best evidence-based psychological treatments do not work for everyone, and patient drop-out and non-response are general problems in health care today (Holmes et al., 2018). For example, a meta-analysis of clinical trials of psychotherapies for depression found a 9% higher variance in the intervention groups compared with the control groups, which supports the idea of heterogeneity in individual treatment response across patients and hence that the outcome from therapy differs from person to person (Kaiser et al., 2022). Consequently, personalization of psychological treatments may be warranted.

There are several approaches to the personalization of psychological treatments. One of these is individually tailored (IT) treatments, where treatment components, such as the content, intensity, and style of delivery, are matched

to the specific needs of the patient (Nye et al., 2023). Another approach is treatment matching (TM), which seeks to increase treatment effectiveness and success by matching an individual with the most appropriate treatment method (Nye et al., 2023). The matching can be based on factors such as the individual's symptomatology, personality traits, and previous treatment experiences (Cohen & Harris, 2023). A recent meta-analysis found a small significant effect size ($d=.22$) in favor of personalized treatments over evidence-based standardized treatments, which remained significant also when studies that were rated as at high risk of bias were removed from the analysis ($d=.14$). Although it was a small effect size, this corresponded to one in eight people getting a better outcome from personalized treatment in relation to standard treatment by the logic of the number needed to treat (NNT). Both individually tailored treatments and treatment matching methods were found to be superior to standardized treatment in one recent meta-analysis, but the effect size for individually tailored studies was larger ($d=.37$ compared to $d=-.13$; Nye et al., 2023).

Yet, such matching is not necessarily related to understanding the individual's own wishes and preferences regarding treatment. Evidence-based practice and person-centered care include incorporating patients' preferences in the selection of treatment when several effective treatments exist, and in general treatment decisions when adapting treatment content and structure. This seems significant, for example, given a national cross-sectional survey carried out in England and Wales, which showed that about 50% prefer a certain type of psychotherapy and 75% have a preference for when the therapy is delivered (Williams et al., 2016). Those who expressed a preference for a certain type of psychological treatment and felt their preferences had not been met were six times less likely to agree with a statement that the therapy had helped them (Williams et al., 2016). Another research line of personalized psychological treatments comprises so-called *preference studies*, which entail investigating the outcome when accommodating the treatment given based on the patient's own preferences regarding type of treatment. Most studies investigating preference effects have included options to choose medication along with options related to psychological or psychosocial treatments. Meta-analytic results from preference studies with regard to mental illness suggest that accommodating patients' preferences regarding treatments can directly influence outcomes in treatments for mental health (Delevry & Le, 2019; Lindhiem et al., 2014; Swift & Callahan, 2009; Swift et al., 2018; Windle et al., 2020). Patients who received their preferred psychological treatment, either through active choice or through randomization, had higher treatment satisfaction and treatment completion and better clinical outcomes ($d=.15$) according to one meta-analytic review (Lindhiem et al., 2014). The effect size was modest but consistent

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across several moderation variables, such as when comparing treatments for psychological disorders against treatments aimed at medical conditions, when comparing studies in which participants were given information about the different treatment options before making their choice compared to a more uninformed choice, or studies focusing on more severe versus mild psychological distress (hence, inpatient vs. outpatient). In addition, the effects were similar regardless of whether the patient actively chose a treatment or happened to be randomized to their preferred treatment, suggesting that the active choice did not have any additional effect apart from receiving one's preferred treatment (Lindhiem et al., 2014). Swift and colleagues (2018) found a statistically significant and small weighted average preference effect on outcome for those receiving their preferred psychotherapy ($d=.28$) and found that those patients whose preferences had not been met or who had not been given a choice were almost twice as likely (1.79) to drop out of treatment prematurely. Another meta-analysis of 23 identified preference trials on clinical outcomes showed a pooled result of a small but significant benefit for patients who had been randomized to their preferred treatment, with an overall effect size of $ES=0.18$. Of the nine studies evaluating mental health treatments, eight evaluated a choice between psychotherapy and pharmacotherapy. The benefits of receiving a preferred treatment were higher ($ES=.23$) when pooling the results of the studies aimed at mental health problems compared to the other disease groups included in the review (concerning pain and functional diseases; Delevry & Le, 2019). In yet another recent systematic review, accommodating patient preferences for mental health treatments was associated with better working alliances and less drop-out from treatment, although unlike in other meta-analyses, no association was found with outcome (Windle et al., 2020). Twenty-one of 34 studies included offered medication as one treatment option. Among the psychosocial interventions included, the most common was CBT, followed by counseling and inter-personal therapy (Windle et al., 2020).

However, not all studies show significant outcomes after receiving a preferred mental health treatment. In a recent double-randomized controlled preference trial including 217 Swedish participants with panic disorder and conducted within Swedish routine psychiatric care, participants were randomized to either choosing between psychodynamic therapy or cognitive behavioral therapy (CBT) or being allocated to one of the two treatments or to a wait-list control group, using a double randomized controlled preference trial (DRCPT; Svensson et al., 2020). As opposed to most prior preference studies, the majority of which have investigated treatment preference effects in relation to preferences for psychotherapy or psychopharmacology, that study was one of the first to examine preference effects between two branches of psychotherapy. The results showed no difference between the groups regarding outcomes for

symptom reduction, absence from work, employment status, or drop-out from treatment, neither when assessed at the end of treatment nor at a 2-year follow-up. The authors suggest that the effect of treatment preference may be limited when the choice is between two evidence-based psychotherapies compared to when the choices are between psychotherapy and medication (Svensson et al., 2020).

Personalizing internet-based treatments

To improve the outcomes of internet-based psychological treatments, it may be important to investigate factors for personalizing the treatment. One limitation with ICBT treatments is that they are fixed programs with limited room to adapt the treatment based on the patient's unique situation and problems. Many patients in the clinical setting, such as in primary care, have several comorbid conditions that may need to be addressed through various interventions and treatments. Attempts have been made to address comorbid conditions in, for example, patients with different anxiety diagnoses (Titov et al., 2010) and patients with anxiety diagnoses and depression (Titov et al., 2011) by developing transdiagnostic ICBT treatments. These treatments address common underlying mechanisms in CBT treatments to address several different diagnoses.

Tailored ICBT

However, transdiagnostic treatments do not consider the patient's preferences and unique situation. Some trials exist in which ICBT has been tailored and personalized for individual patients with anxiety disorders (Berger et al., 2014; Carlbring et al., 2011; Nordgren et al., 2014; Silfvernagel et al., 2012; Silfvernagel et al., 2018). Individually tailored treatments mean that the treatment components, such as the content, intensity, and style of delivery, are matched to the specific needs of the patient (Nye et al., 2023). Carlbring and colleagues (2011) found that an individually tailored ICBT treatment for adults with various anxiety disorders, including panic disorder, social phobia, and generalized anxiety disorder, was effective in reducing symptoms of anxiety and depression and increasing quality of life (mean within-group effect size was $d=1.15$ at post-treatment), with benefits remaining at a 1-year (mean $d=1.13$) and 2-year (mean $d=1.04$) follow-up. In another trial, an individually tailored treatment for patients with anxiety diagnoses, including social phobia, panic disorder, and generalized anxiety disorder, was compared to a disorder-specific treatment and to a wait-list control group (Berger et al., 2014). In this trial, both active treatment groups improved on primary disorder-unspecific outcomes for anxiety, depression, and general symptomatology, which were

maintained at a 6-month follow-up, with no significant difference between the tailored and standardized group, indicating that both standardized and tailored ICBT are beneficial (Berger et al., 2014). Moreover, tailored ICBT has been found effective in a primary care setting among patients with anxiety disorders and comorbidities, with sustained effects 1 year following treatment (Nordgren et al., 2014).

Self-tailored ICBT

In addition, a couple of trials have explored outcomes in ICBT for anxiety disorders where patients could tailor their own treatment. The first results from these studies showed significant improvements in anxiety even when patients were allowed to choose their own treatment modules (Andersson et al., 2011), and they showed that self-selection of treatment modules may not differ in outcomes compared to a disorder-specific ICBT treatment in patients with worry (Dahlin et al., 2022). In a recent factorial design controlled trial, participants with depression were randomized to (among other factorial conditions) a self-tailored condition, where they could choose between six and 13 available modules based on a brief description, or to a clinician-tailored condition, where clinicians tailored treatment by choosing between six and 13 modules based on the client assessment interview and pre-treatment assessment (Andersson et al., 2023). Results showed that the self-tailored and clinician-tailored conditions produced similar effects on the main outcome of depression, with a small but statistically significant effect between groups in favor of the self-tailored condition ($d=0.26$). When comparing self-tailored and clinician-chosen modules, there was a difference in which modules were approved; therefore, it was concluded that patient-tailored treatments make sense because they do not result in the same treatment content as when clinicians choose (Andersson et al., 2023).

The therapeutic relationship

As indicated by the definition of person-centered care, this approach to care involves a collaborative and mutual partnership between the patient and the health care professional when making treatment decisions and adapting the care based on the patient's individual circumstances and values (Britten et al., 2020; The Health Foundation, 2016). Within the psychotherapy research, the working alliance, that is, the therapeutic relationship between the patient and the therapist, is a central component that is understood as a common factor of relevance in all therapeutic methods and that has been much studied (Wampold, 2015). A widely used transcending model that conceptualizes the alliance regardless of therapy method is that of the working alliance (Bordin, 1979).

This model conceptualizes working alliance as a contractual relationship and a multidimensional concept built up by three components: mutual trust and acceptance between the patient and therapist (bond), agreement on the goals for the treatment (goal), and agreement on how to reach those goals (task; Bordin, 1979).

Several meta-analyses show a positive and robust moderate relationship between quality of the alliance and treatment outcomes in psychotherapy in adults (Flückiger et al., 2018; Horvath et al., 2011; Martin et al., 2000), with a mean correlation of $r=.28$ (Flückiger et al., 2018; Horvath et al., 2011), indicating a close to medium positive relationship. The alliance-outcome relationship has furthermore been shown in psychotherapy with children and adolescents; however, it is a somewhat weaker relationship compared to that shown in the adult literature, with an association of $r=.19$, indicating a small positive association according to an updated meta-analysis (Karver et al., 2018). The alliance formation in psychotherapy with children and adolescents is, furthermore, complicated by the fact that the therapeutic relationship is often tri-directional, including also the parent/caregiver, where the therapist-parent alliance might have implications for treatment continuation with the child (Karver et al., 2018).

Alliance in the context of internet-delivered treatments is less studied and the results are contradictory (Andersson et al., 2012; Andersson & Titov, 2014; Carlbring et al., 2018). Due to the self-help format of the treatment, there is less room for the therapist's input, and the time the therapist dedicates to the patient is much less than in face-to-face therapy. Additionally, the patient might not have met the therapist face to face. However, the therapist role might still be important in ICBT since the therapist encourages, validates, and gives feedback on the patient's therapeutic work by private written messages (Andersson et al., 2012). Several studies show that it is possible to create a positive alliance in internet-based psychological treatment and that the patients' ratings of the alliance are generally high (Andersson et al., 2012; Hadjistavropoulos et al., 2017; Vernmark, 2017). However, the predictive value of alliance in these treatments seems to differ compared to face-to-face treatments, and results typically show no statistical correlation with outcome in treatment (Andersson et al., 2012; Hadjistavropoulos et al., 2017; Vernmark, 2017). However, findings are partly contradictory. For example, in a study comparing self-help for insomnia with and without therapist support, findings showed that the benefit of therapist support on outcome was mediated by patient involvement in the most important parts of the therapy (i.e., sleep reduction and stimulus control; Kaldo et al., 2015). Hence, the therapist support improved outcomes in therapy by allowing greater patient involvement in treatment, rather than the support having a direct effect on outcome (Kaldo et al., 2015). Zagorscak and colleagues

(2020) found that expectations of benefitting from ICBT for depression influenced the strength of the working alliance (Bordin, 1979) with respect to bond, task, and goal ratings measured at mid-treatment. Moreover, early symptom changes during the therapy were associated with later alliance ratings. The task and goal ratings predicted therapy outcome, but not the bond rating (Zagorscak et al., 2020). In alignment, two recent meta-analyses conclude that alliance is associated with outcome in internet-based treatment programs (Kaiser et al., 2021; Probst et al., 2019). Probst and colleagues (2019) analyzed correlational studies and found a moderate ($r = 0.252$) relationship with outcome, and that the subscale of task correlated more strongly with outcome than the subscale of bond (Probst et al., 2019). In the meta-analysis by Kaiser and colleagues (2021), a small and significant overall weighted effect size between alliance and mental health outcomes was found ($r = .203$). In that meta-analysis, original studies on all internet-based or remote psychological interventions were included, including some that provided therapist support through telephone, video, or chat, although the majority provided therapist support through emails (which is the most common in ICBT treatments). The strength of the association with outcome was consistent over targeted diagnosis, frequency, and mode of therapist contact (Kaiser et al., 2021).

Apart from research on the predictive value of alliance in treatment outcome, researchers have investigated factors involved in creating successful alliances in therapy. There is some evidence that the qualities of the therapist matter, and that the outcome of a specific treatment method varies between therapists (Wampold, 2015). Some therapists seem to be able to create strong alliances with diverse patients and possess “facilitative interpersonal skills,” including verbal fluency, emotional expression, persuasiveness, hopefulness, and empathy. They also express professional self-doubt and deliberately practice therapeutic skills outside of their patient therapies (Wampold et al., 2017). Interestingly, one study found that within-therapist working alliance variation was more important for the relationship between alliance and outcome than between-therapist effects (Uckelstam et al., 2018). This indicates that the relationship between alliance and outcome is not primarily determined by general therapist traits or characteristics, but that the alliance and subsequently its relationship to outcome is created in the unique relationship between therapist and patient. The quality of the alliance may thus differ between patients seeing the same therapist. Thus, although some therapists on average may be more effective in creating good working alliances, the match between therapist and patient may be more important (Uckelstam et al., 2018). In line with this, the American Psychiatric Association’s task force on evidence-based practice states that the success of a treatment hinges on the interplay among factors such

as the treatment approach, the therapist, the therapeutic alliance, and the patient (American Psychiatric Association, 2006).

Patient empowerment

The term “patient empowerment” is closely related to practices such as person-centered care and ideals of enabling patients to take control in their own lives. It has been widely emphasized across patient populations and settings and it is a general tenet to foster empowerment among patients in health care settings. However, because it is so widespread and emphasized in various settings, the concept of empowerment has been used and defined in diverse ways, and there is a lack of a valid and cohesive definition (Joseph, 2020). The term sprang up in the 1960s in the United States, where it was used by the civil rights movement and the women’s movement to raise awareness of power imbalances between groups in society (Boevink, 2017). Since then, the term has been used and researched across fields such as social work, organizational science, political science, health promotion, rehabilitation and chronic diseases, economics, and immigration, as well as in psychology (Boevink, 2017; Cyril et al., 2016). Within the mental health field, the term first emerged in association with the deinstitutionalization movement in the United States, where programs in the communities were developed to help users of psychiatric services grow out of the patient role and reintegrate into society (Boevink, 2017). Later, it showed up in the consumer movement and in self-help groups, such as the Alcoholics Anonymous (AA), to describe the importance of strengthening influence over one’s own life situation as well as participation and power over one’s own care and support (Hansson & Björkman, 2005).

Empowerment as a concept entails complexity because of its multidimensionality. It can be understood on a micro level as a feeling of influence and control over one’s own life, but also on a meso level, based on influence in communities or organizations, or on a macro level through power structures between different groups in society (Noordink et al., 2023). Thus, empowerment is both an internal process and an external one, as social interactions both at the dyadic and macro levels influence how people view themselves and their possibilities and abilities to gain power and exert control over their lives (Cattaneo & Chapman, 2010). Existing definitions also differ depending on whether empowerment is seen as a state or as a process. Empowerment as a state may be defined as the extent to which a person or group feels able to exert influence over their own life. Empowerment as a process is the effect of certain factors or events in enhancing the group or person’s feelings of empowerment through increased knowledge, skills, attitudes, or self-awareness, which in turn facilitate the achievement of other goals or outcomes (Fumagalli et al., 2015;

Noordink et al., 2023). Furthermore, much of the empowerment research has focused on the individual level with limited attention to how the context influences the individual's sense of empowerment (Noordink et al., 2023). Thus, at the individual level, empowerment can change over situations and time, and because of its context-dependence, empowerment can have different meanings in different settings (Noordink et al., 2023).

One definition of empowerment that builds on the core concepts from prior literature within the field of psychology and which integrates both individual and contextual aspects states it as an ongoing

iterative process in which a person who lacks power sets a personally meaningful goal oriented toward increasing power, takes action toward that goal, and observes and reflects on the impact of this action, drawing on his or her evolving self-efficacy, knowledge, and competence related to the goals. Social context influences all six process components and the links among them. (Cattaneo & Chapman, 2010, p. 647)

This definition builds on such core concepts as power, personal values, own efforts, and changes in balances and power dynamics within social relationships that are a result of increased empowerment. An increased sense of empowerment is thus a sense of power within one or several personally meaningful areas that can be related to one's own efforts. It is also a circular process, in which personally meaningful goals might change over time, and as knowledge is gained while reaching for certain goals, it might result in deepened reflection that gives rise to new insights into personal values (Cattaneo & Chapman, 2010).

Other synthesizing attempts have been made to specifically define *patient* empowerment in health care settings (Bravo et al., 2015; Fumagalli et al., 2015; Hickmann et al., 2022). A content mapping study based on a systematic literature review of definitions of patient empowerment, and its relations to terms such as patient engagement, enablement, activation, and participation, clarified patient empowerment as

the acquisition of motivation (self-awareness and attitude through engagement) and ability (skills and knowledge through enablement) that patients might use to be involved or participate in decision-making, thus creating an opportunity for higher levels of power in their relationship with professionals. (Fumagalli et al., 2015, p. 390)

Patient empowerment is thus understood as both an emergent state and a transformative process of gaining or acquiring knowledge, skills, attitudes, and self-awareness (Fumagalli et al., 2015). Yet, another content mapping study based on previous research as well as interviews with stakeholders such as patient representatives, primary health care clinicians, and health managers, was carried out by Bravo and colleagues (2015) to clarify patient empowerment.

The understanding of patient empowerment is related to ethical considerations regarding patients' rights, the promotion of autonomy, self-determination, and an egalitarian power balance in the patient-professional relationship. Processes and interventions to increase patients' sense of empowerment include shared decision making, motivational interviewing, coaching, and patient education for disease self-management. Indicators that a patient is/has become empowered include self-efficacy, personal control, knowledge, health literacy, respect, and a sense of meaning and coherence in relation to their condition. Observable behaviors that signal empowerment include active participation in shared decision making, self-management, and proactive information seeking or involvement in support groups. Empowerment outcomes can be assessed as immediate (e.g., shared decision making), intermediate (e.g., well-being or quality of life), and long term (e.g., health status) effects on patients (Bravo et al., 2015).

Another definition of patient empowerment is found by the European Patients Forum (EPF), which is a cross-disease coalition of patient organizations in Europe that work for patient advocacy. Their definition includes a patient's ability to take control over and self-manage their disease as well as the ability to be involved and participate in their own health care and treatment decisions based on knowledge, skills, and self-awareness (European Patients Forum, 2017). They also recognize that patient empowerment entails active engagement and participation at multiple levels. This includes both the meso level, within institutions and health care settings, and the macro level, where patients collectively take action in political, social, and cultural settings, for example, in policymaking or health care research (European Patients Forum, 2017).

As there is no uniform definition of empowerment, evaluating initiatives and interventions to promote empowerment is not a straight-forward matter. Few generic measurement scales of empowerment exist, and none of the existing measurement scales measure the exact same underlying dimensions (Barr et al., 2015; Cyril et al., 2016). In a systematic literature review, the existing assessment scales of empowerment covered from one to 11 domains and included aspects such as control, competence, participation, power, motivation, political efficacy, leadership, and positive relationships (Cyril et al., 2016). In another systematic review, the 19 measurement scales included together encompassed 38 different underlying concepts (Barr et al., 2015). In yet another recent systematic review, the variety of definitions and measurement scales identified highlights the lack of an agreed definition of patient empowerment. This review also revealed methodological limitations in studies exploring factors predicting empowerment and its connection to treatment outcomes (Acuña Mora et al., 2022).

As a result, certain researchers assert that the understanding of empowerment is dependent on the situation, and its interpretation may vary between groups, research fields, and circumstances. Thus, creating universal measurement scales of empowerment may be both unfeasible and undesirable, and the researchers stress the need for measurement tools that are tailored to the context in which empowerment is being evaluated (Noordink et al., 2023).

Peer support

A peer support worker (PSW) is a person who self-identifies as having (or having had) mental health challenges (as well as other social, psychological, or medical challenges) and who, by mutual agreement, delivers social and emotional support based on lived experiential knowledge to patients with similar challenges (Fortuna et al., 2022). Peer support services can be delivered and organized in various ways, such as by peer-delivered self-help, peer-run services, or peers in recovery as employees (Fortuna et al., 2022). The latter category is a fast-growing approach that began in the United States in 2001 and since then has spread to other parts of the world, including Australia, New Zealand, and the United Kingdom, as well as countries in Europe, including Sweden (Fortuna et al., 2022; Mutschler et al., 2022). In this context, PSWs are individuals who self-identify as having lived experience of being or having been health care users for their own mental challenges and who become employed within the health care sector to support patients based on their own experiences. PSWs commonly work in collaboration with conventional psychiatric care (Fortuna et al., 2022). Within the United States, 43 states now employ peers as employees. They are typically required to receive training and are supervised in their role (Fortuna et al., 2022).

In Sweden, PSWs have only recently begun to be introduced within health care. At the beginning of 2014, PSWs who had received training for their role became employed in five psychiatric units in the southern part of Sweden (Rosenberg & Argentzell, 2018). The initiative has been evaluated in a qualitative study on service users' (patients') experiences of having contact with a peer supporter in addition to their ordinary treatment (Rosenberg & Argentzell, 2018). The peer supporters were considered non-judgmental, and the knowledge that the peer supporters had "been there themselves" reduced patients' self-stigma and feelings of alienation, helping them feel more comfortable about talking openly than they might with regular staff at the unit. The peer supporters' experiences fueled patients' hopes that they too could recover and be part of a community and workplace as the peer supporters now were. Another finding was that the implementation of PSWs paved the way for a change in the organizational climate and in the relationship between patients

and the health care system, and the participants described how the contact with PSWs enhanced their trust and belief in the psychiatric care unit, motivating them engage in treatments. The presence of PSWs reinforced a sense that the unit valued a recovery-oriented approach and user involvement in care (Rosenberg & Argentzell, 2018).

Beginning in 2016, the PEER (personlig egnerfaren resurs) Project was initiated by the network organization the National Collaboration for Mental Health (Nationell samverkan för psykisk hälsa [NSPH]; Wenzer, 2018). NSPH brings together 13 national patient and kinship organizations and works to strengthen patient involvement within psychiatric care (Wenzer, 2018). Between 2016 and 2018, NSPH established a national framework and method book for training PSWs, and it recruited, educated, and provided supervision for PSWs (Nordén & Falkman, 2018). The project took place in collaboration with four pilot counties in Sweden, where the PSWs were employed within organizations providing psychiatric or social psychiatry care. NSPH coordinated the implementation with the health care organizations within the four counties (Nordén & Falkman, 2018). PSWs now work within seven out of 21 health care regions in Sweden, with the majority working in psychiatric care or social psychiatry (NSPH, 2023).

Integral to peer support programs are the focus on empowerment of patients with mental problems and the focus on strengths and resources rather than solely on symptom reduction, together with support based on shared lived experience (Farkas & Boevink, 2018). Several critical ingredients and theoretical processes have been proposed for peer support services, such as social support, the sharing of experiential knowledge, social learning theory, empowerment, helper therapy principle, and self-determination theory. Regarding the latter, it is proposed that three universal psychological needs – autonomy, competence, and relatedness – motivate self-initiated behavior, or intrinsic motivation, and likewise are necessary for psychological health (Fortuna et al., 2022). Some core competences to guide the work of peer supporters have been outlined (Substance Abuse and Mental Health Services Administration [SAMHSA], 2015). The assistance offered by peer supporters is centered around the principles of recovery, emphasizing autonomy, strengths, and resources in the individuals they assist. It is recognized that there are various paths to recovery, and peer supporters empower patients to make their own choices. Peer support services are, moreover, relationship focused, acknowledging that the foundation of support lies in the connection between the peer supporter and the individuals they serve. This support is built on collaboration, mutual trust, empathy, and equality derived from shared experiences. In addition, it is trauma-informed, aiming to establish a secure environment where patients can cultivate a sense of control and empowerment (SAMHSA, 2015).

Research investigating the effectiveness of peer support services is hampered by a lack of methodological rigor, as the studies lack randomized controlled trials or have a high risk of bias (Fortuna et al., 2022). However, an existing meta-analysis including 30 randomized controlled trials of peer support interventions delivered both in group format and individually, showed small and significant effect sizes for peer support interventions on psychiatric symptoms and personal recovery (such as hope, agency, and sense of purpose) at post-measurement but not for functional recovery (including quality of life and vocational and social functioning) when compared to care as usual and wait-list controls (Cuijpers et al., 2023). The effect on clinical symptoms was sustained at 6- to 9-month follow-ups, but was not significant for longer-term follow-ups, whereas no significance was found for personal recovery at follow-ups. Limitations of the meta-analysis, however, included a high risk of bias in the studies, heterogeneity in measures for the analyzed categories, and not all studies reporting long-term follow-ups, meaning that these analyses included a smaller sample size (Cuijpers et al., 2023). Another meta-analysis looked at peer support limited to interventions delivered in an individual format in 19 randomized controlled trials and found a modest effect of peer support (as an adjunct to usual care or, in four studies, as a substitute for other mental health care personnel performing a similar role) on empowerment and recovery (such as well-being and service engagement White et al., 2020). No significant difference was found between peer-supported interventions and controls on psychiatric symptoms, quality of life, satisfaction with services, or general and social functioning. The authors consequently suggest that the effect of peer support interventions is primarily psycho-social in nature and that future studies should give consideration to outcome measures targeting these aspects. Results also showed a tendency for peer support to make a difference in outcomes of working alliance compared to traditional health care personnel, although this outcome had a relatively small sample size, including participants from three trials of 213 participants (White et al., 2020).

Summary and knowledge gap

In sum, anxiety disorders entail much suffering for the individual as well as large societal costs. Although effective evidence-based psychological treatments exist, many people do not receive adequate care. Internet-delivered cognitive behavioral therapy (ICBT) may increase access to care by reducing some of the barriers that exist for receiving evidence-based psychological care, such as limited therapist time, geographical distances, inflexibility in terms of when to visit health care centers, and potential stigmas. Although ICBT has been proven effective for a range of mental health conditions, even the best

INTRODUCTION

evidence-based treatments do not work for everyone. Person-centered care and patients' active involvement are advocated in health care, but few trials have investigated how patient-influenced principles can be endorsed in internet-delivered psychological treatments. Acceptance and commitment therapy builds on the core principles of CBT and fits well with the person-centered approach and the third pillar in evidence-based care in terms of personalizing treatment. Moreover, research on effective psychological treatments ultimately needs to be conducted within the settings those treatments aim to work in. Primary care is part of the first line psychiatry in Sweden and deals with people of all ages and all mental health diagnoses. Effectiveness studies on internet-delivered psychological treatments performed in primary care are of high value.

Aim

The overarching aim of this doctoral thesis is to amplify the patients' voices in internet-delivered psychological treatments by exploring how patient influence can be integrated into the treatment. The included studies each explore dimensions of patient-influenced parts in acceptance-influenced internet-delivered cognitive behavioral therapy (ICBT) for patients with anxiety disorders. Based on this objective, the doctoral thesis aims to answer the following research question: *How can patient influence be conceptualized and integrated into acceptance-based internet-delivered CBT for anxiety disorders in primary health care?*

Defining patient influence

Although person-centered care is advocated in health care and primary care, no coherent definition exists (Jørgensen & Rendtorff, 2018). Terms such as patient participation, patient engagement, patient/user involvement, shared decision making (SDM), patient empowerment, person-centered care, and patient-centered care are used interchangeably and combined with terms such as patients, clients, citizens, and service-users to denote the importance of patients being given the opportunity to be active agents who participate in their own care (Hickmann et al., 2022; Jørgensen & Rendtorff, 2018). Likewise, there is a focus on evoking patient experiences and preferences of treatment. Moreover, there are calls for user participation and cooperation with patient organizations and patient representatives in promoting strategic improvements and organizational development of health care, as well as in the development and research of treatment interventions (Swedish Association of Local Authorities and Regions, 2018; Vindefjärd, 2020). In this doctoral thesis the term “patient influence” has been chosen as a broad term to encompass the patients' active participation in treatments; the fostering of patients' own values to guide treatment change; patient involvement in choices and design of treatments; integration of patients' experiential knowledge and involvement of health care users in treatment design and research; patients' experiences with treatment; and the emphasis on patient control, agency and empowerment, and a trustful therapeutic relationship.

Summary of studies

Table I summarizes the studies included for the doctoral thesis.

Table I.

Summary of the included studies for the doctoral thesis

	Study I	Study II	Study III	Study IV
Title	Primary care peer-supported internet-mediated psychological treatment for adults with anxiety disorders: Mixed methods study	Effects of patient-driven ICBT for anxiety in routine primary care and the relation between increased experience of empowerment and outcome: A randomized controlled trial	Effectiveness of and processes related to internet-delivered acceptance and commitment therapy for adolescents with anxiety disorders: a randomized controlled trial	Empowerment in primary care and psychiatric settings: A psychometric evaluation of the Swedish version of the Empowerment scale
Participants	Adult patients in primary care diagnosed with an anxiety disorder (according to PRIME MD) and referred to a central unit for ICBT in the Västra Götaland region	Adult patients in primary care diagnosed with an anxiety disorder (according to MINI and PRIME MD) and referred to a central unit for ICBT in the Västra Götaland region	Self-referred adolescents aged 15–19 years from all over Sweden meeting criteria for one or more anxiety disorders (according to MINI- KID)	Adult patients in primary care and seeking care for mental health problems, as well as psychiatric outpatients
ICBT program	The Internet Help for Anxiety Problems (Internethjälpen vid ångestproblem), Livanda-Internetkliniken AB	The Internet Help for Anxiety Problems/Worries, Depression, Stress Problems, Sleep Problems (Internethjälpen vid ångestproblem/oro/nedstämdhet/stress/sömnproblem), Livanda-Internetkliniken AB	Anxiety Help for Adolescents (Ångesthjälp Ung), Psykologpartners	N/A
Design	Single-arm mixed methods intervention	Randomized controlled trial (RCT) with two arms; active control condition	Randomized controlled trial (RCT) with two arms; non-active control condition	Psychometric evaluation of the scale's structural validity, dimensionality, and internal consistency
Intervention	9 participants receiving the intervention ICBT with additional peer support	55 participants randomized to (1) patient-driven ICBT and (2) standard ICBT	52 participants randomized to (1) intervention group iACT or (2) wait-list control group	431 participants answering the measurement scale at baseline before taking part in any intervention (the primary care sample: $n=210$, the psychiatric sample: $n=221$)
Data analysis	Qualitative inductive thematic analysis; descriptive statistics; quantitative within-group analysis with the non-parametric Friedman analysis of variance	Multilevel models, correlation analyses	Multilevel models, correlation analyses	Confirmatory factor analysis (CFA), coefficient Omega (ω) and Cronbach's alpha (α)

Study I: Primary care peer-supported internet-mediated psychological treatment for adults with anxiety disorders: Mixed methods study

Aims

The aim of this study was to explore patient experiences and the preliminary effectiveness, feasibility, safety, and acceptability of the addition of peer support workers (PSWs) in acceptance-influenced ICBT treatment in a small sample of adults with anxiety disorders treated in primary care.

Method

Procedure and participants. Participants were adults aged 18 years or older with an anxiety disorder diagnosed according to ICD-10 (World Health Organization, 2019). Participants were recruited from primary care patients referred to a central unit for ICBT in the Västra Götaland region, Sweden. The recruitment period for the study was 4 weeks in the spring of 2019. Twenty-one patients booked for a first assessment interview during this period met the inclusion criteria and were asked to participate. Fifteen respondents agreed to participate, nine of which were included in the final study. All participants were interviewed before and at the end of treatment by a psychologist using the structured diagnostic interview instrument PRIME-MD (Spitzer et al., 1994). Participants answered questionnaires about their symptoms and functioning on four occasions: before treatment, at the middle of the treatment, at post-treatment, and at a 3-month follow-up assessment. After completion of the treatment, the participants were interviewed by a trained research assistant (with no relationship to the participants) about their experiences and attitudes towards treatment. The interviews were conducted by telephone 2 to 5 weeks after completion of treatment using a semi-structured interview guided with open-ended questions.

Intervention. The treatment program used in this study was developed by Livanda-Internetkliniken AB to treat anxiety problems. It is a transdiagnostic anxiety treatment targeting several different anxiety disorders and is aimed at mild-to-moderate problems. The program is based on both CBT methods and acceptance and commitment therapy (ACT) interventions. It consists of eight modules containing psychoeducative materials and evidence-based tools for treating anxiety problems. Two peer supporters were recruited through a Swedish patient organization, the National Cooperation for Mental Health in Gothenburg (NSPHiG), which has an established program for Swedish peer support education.

All the included participants received the internet-based treatment program as well as weekly written support from a PSW. Peer supporters and participants

interacted in the treatment program via asynchronous secure messages. Peer supporters provided support and feedback on exercises in the treatment program. The participants received a follow-up telephone call from the peer supporter in the middle of the treatment. Participants also had limited contact with two licensed psychologists through written messages in the treatment program. Both psychologists worked at the participating clinic and were experienced in working with internet-based treatment programs. The psychologists monitored the treatment and ensured that no adverse events were reported. In all cases, peer supporters had the most contact with the participants. To stay true to how peer support operates in nondigital interventions and to ensure that the content solely reflected the peer support intervention, the contact between the participants and the psychologists was limited to messages informing the participants that new modules had been activated in the treatment program, and more detailed feedback on exercises and written messages from the psychologists was given only upon request from the participants.

Measures. Quantitative assessments for anxiety (GAD-7; Spitzer et al., 2006), depression (MADRS-s; Montgomery & Asberg, 1979), psychological distress (CORE-10; Barkham et al., 2013), and empowerment (the Empowerment Scale – Making Decisions; Rogers et al., 1997) were collected at four time points. Qualitative data were collected through semi-structured interviews with the participants at the end of the treatment.

Data analysis. This study followed a mixed methods convergent design, where qualitative and quantitative data complemented each other to provide a fuller understanding of the research problem. Qualitative and quantitative data were analyzed separately and integrated and interpreted during the discussion of the results. The qualitative data of interviews with participants, as well as messages sent by the peer supporters in the treatment program, were analyzed by thematic analysis (Braun & Clarke, 2006). An inductive bottom-up approach was used to capture experiences and opinions as unconditionally as possible. The analysis was performed using a realist approach to identify the manifest content of the participants' views of the treatment. The quantitative data analysis was carried out using the Friedman analysis of variance (ANOVA) for repeated measures, which is a nonparametric correspondence to a one-way ANOVA with repeated measures. Post hoc analyses were performed using the Wilcoxon signed rank test for related samples. A Bonferroni-adjusted significance level was calculated to minimize the risk of type 1 error since multiple post hoc comparisons were made. The analysis was performed based on the intention-to-treat approach and using last observation carried forward (LOCF) to deal with missing data. This was supplemented by clinical measures of remission from pre-treatment to post-treatment diagnosis as determined by the PRIME-MD diagnostic interview, and clinically significant improvement

by comparing scores on the GAD-7 and MADRS-S against the thresholds for mild, moderate, and severe anxiety and depression at the beginning and end of treatment.

Main findings

The main finding in Study I was that it seems feasible to incorporate PSWs into acceptance-influenced ICBT treatment for anxiety disorders and that the intervention was acceptable to the participants within a small sample of patients recruited from primary care. No adverse outcome was reported. Clinical measures showed that five of the nine participants (56%) no longer fulfilled criteria for their main anxiety diagnosis after treatment, and eight of the nine participants were classified as “improved” based on cut-offs for severity of anxiety symptoms. Quantitative assessments showed statistically significant improvements for anxiety and depression, and increased empowerment from pre-measurement to 3-month follow-up ($p=.01-.003$, $r=.57-.63$) and enhanced general functioning at the end of the treatment. Participants described feeling less anxious and more empowered after going through the treatment. They described doing things they had previously avoided, saying that they felt that they now had strategies to deal with their symptoms, and they felt that they had been strengthened by knowing they were not the only ones struggling with anxiety. The participants further appreciated being able to share experiences with the PSW and felt that the relationship with the PSW was more personal than was the case with the usual health care professionals. Participants also indicated that a digital treatment format made them feel in control over their own treatment, which for many participants felt empowering, although a few felt it was too demanding. As a complement to the interviews, we examined the text messages exchanged between peer supporters and participants in the treatment program. Results from this analysis resulted in three themes of behaviors that the peer supporters used: reinforcement of resources, being present for the patient, and being personal. The last theme captures how the peer supporters effectively used self-disclosure by sharing their own life experiences, particularly in dealing with challenges. Additionally, they offered personal reflections on the treatment program’s content and tools that they found beneficial.

Conclusions

This study provided a preliminary indication about the feasibility and acceptability of adding peer support to acceptance-influenced ICBT for adults with anxiety disorders in primary care. Qualitative results suggest that clinicians may be more effective by allowing themselves, like PSWs, to be more personal and self-disclosing in their messages in the treatment program. The study was conducted in a clinical setting and thus supports the acceptability of

adding peer support to acceptance-based ICBT treatment in real-world settings. Findings may guide the development of future internet-delivered peer-supported interventions, which may examine such treatment with larger sample sizes and randomized controlled trials.

Study II: Effects of patient-driven ICBT for anxiety in routine primary care and the relation between increased experience of empowerment and outcome: A randomized controlled trial

Aims

The aim of this study was to explore the effect of making an acceptance-based ICBT program, aimed at patients with anxiety disorders recruited in primary care, more patient-driven by letting patients choose elements of their treatment. The Study Investigated patients' perceptions of their control over the treatment, their compliance with treatment, and their symptoms of anxiety. A secondary aim was to assess the relationship between changes in empowerment and changes in anxiety symptoms.

Method

Procedure and participants. Participants were recruited from clinical patients in primary care who had been referred to a central unit for ICBT in the Västra Götaland region in Sweden between November 2019 and March 2021. Before initiating treatment, the participants were interviewed by a psychologist using a structured diagnostic interview called Mini International Neuropsychiatric Interview (MINI version 7.0.1; Sheehan et al., 1998). The diagnostic interview was conducted via video call upon referral from the primary health care centers. After the assessment interview, all patients who were offered ICBT and met the inclusion criteria were asked to participate in the study. Twenty-two patients, 27.66% of the patients assessed for eligibility, declined to participate in the study. A total of 56 participants were included in the study, 28 randomized to the intervention condition (patient-driven ICBT) and 28 to the control condition (standard ICBT). One participant never answered the pre-assessment measurement forms, and hence data analyses are based on a total of 55 participants. Participants were asked to answer measurement forms for the pre-assessment, following which they were given access to the treatment program. Participants were further asked to answer follow-up measurement forms at the middle of the treatment (by module 4), at the end of the treatment (by module 8), and at the 3-month follow-up assessment. For safety reasons, participants in the treatment program also answered a weekly question on suicidal ideations.

Intervention. The treatment programs used in Study II were developed by Livanda Internetkliniken AB, and each targeted different mental health problems: anxiety, worries, depression, stress problems, and sleep problems. The program consists of eight modules including psychoeducative materials and evidence-based tools for dealing with various mental health problems. The tools presented are based on principles from cognitive behavioral therapy (CBT) and acceptance and commitment therapy (ACT), and include tools such as exposure, acceptance, value-based living, mindfulness, and cognitive defusion. Participants were randomized to the intervention group (1) patient-driven ICBT or to the control group (2) standard ICBT. Before the start of the treatment, the participants in the intervention group were invited to choose between several aspects of treatment. Patient-driven ICBT (1) was thus adapted to participants' own preferences regarding the focus of the treatment program, which modules/chapters to receive in treatment and in what order, amount of telephone contact and written contact with the therapist, and pace of the treatment. Standard ICBT (2) received the treatment program targeting anxiety problems with a fixed number of modules/chapters (eight modules), written support from a therapist once a week, and telephone support in the middle and at the end of treatment.

Measures. The outcome measures were patients' perceived control over treatment (measured with a questionnaire developed specifically for this study), adherence to treatment (measured by completed treatment modules), symptoms of anxiety (GAD-7; Spitzer et al., 2006), depression (MADRS-s; Montgomery & Asberg, 1979) and general disability (WHODAS 2.0 – the WHO Disability Assessment Schedule–12-item version; Rehm et al., 1999) and feelings of empowerment (the Empowerment Scale – Making Decisions; Rogers et al., 1997) were collected at pre- and post-treatment and at a 3-month follow-up.

Data analysis. Differences in perceived control over the treatment were analyzed by an independent t-test. Adherence to treatment was assessed by descriptive statistics and by percentage of completed modules between the groups, as well as by the non-parametric Mann–Whitney U test.

The analyses for the outcome measures of anxiety symptoms, depression, general disability, and empowerment included all participants who were randomized, according to the intention-to-treat principle. Continuous outcomes variables measured at pre- and post-treatment and at 3-month follow-up were analyzed using multilevel modelling (MLM) for repeated measures with an unstructured covariance structure to test the overall change over time in the patient-driven condition and the interaction between the two groups and time, where time was included as a factor (pre-, mid-, post-, and follow-up). Each model's overall interaction effect was tested, as well as the interactions from

pre-treatment to each of the following time points. Both within-group and between-group effect sizes (Cohen's d) were calculated on observed data.

Correlations between empowerment and severity of anxiety symptoms were analyzed by comparing changes in perceived empowerment and changes in anxiety symptoms from pre- to post-assessment using Pearson correlation coefficients. All correlation analyses were based on actual values.

Mediation analysis with bootstrapping was performed using PROCESS by Hayes (2022) to investigate whether empowerment would mediate the effect of treatment condition on outcomes for anxiety. Results from this analysis are found in Appendix I.

Main findings

Results showed that participants in patient-driven ICBT (1) had statistically higher perceived control over treatment than participants in the standard ICBT (2) group ($d=.65$). A significant interaction effect was found for anxiety symptoms, where the patient-driven group had a significantly larger reduction in anxiety symptoms compared to the standard ICBT group over time. However, symptoms of anxiety, depression, and general disability were significantly reduced in both groups over time. At a 3-month follow up, between-group effects for observed values showed that participants in the patient-driven group showed larger reductions in symptoms of anxiety ($d=0.33$), depression ($d=0.47$), and general disability ($d=0.56$).

Empowerment increased in both groups over time and no interaction effect was found. However, at post-measurement and at a 3-month follow up, the patient-driven group scored higher on feelings of empowerment, with a large between-group effect size for observed values at the 3-month follow-up ($d=0.86$). A significant medium correlation was found between pre- and post-measurement changes in empowerment for both groups combined ($r=-0.47$), indicating that participants who had improved the most in empowerment also had the greatest decreases in anxiety symptoms and vice versa – patients whose anxiety decreased the most improved the most in empowerment. The results from the mediation analysis are found in Appendix I.

There was no difference in adherence to treatment between the two groups.

Conclusions

This study's results indicated that ICBT that is to a larger extent patient-driven may have a greater effect on anxiety than standard ICBT. The effect on perceived control over treatment might also be larger in patient-driven treatments than in standard ICBT. Empowerment increased in both groups over time. Internet-based therapies inherently promote patients as active agents of their own care and might be well suited for promoting perceived control and

empowerment. Findings need to be replicated given the small sample size and the explorative nature of the study.

Study III: Effectiveness of and processes related to internet-delivered acceptance and commitment therapy for adolescents with anxiety disorders – A randomized controlled trial

Aims

The aim of this study was thus to assess the effectiveness of an internet-delivered transdiagnostic anxiety treatment for adolescents based on ACT. Secondary aims were to assess the relationship between psychological flexibility and treatment outcomes for anxiety, and between the participating youths' and therapists' working alliance and treatment outcomes for anxiety.

Method

Procedure and participants. Participants were recruited through advertisements on social media, in schools, primary health care centers, and outpatient psychiatric clinics during December 2019 and January 2020. In the first step of the sample's pre-assessment, those interested were contacted by email and given a link to a website where they were given Study Information and could give their consent to participate and fill in measurement forms assessing symptoms of anxiety, quality of life, and psychological flexibility. Those who met the eligibility criteria were contacted by phone and underwent a diagnostic interview using the MINI-KID instrument (Sheehan et al., 2010). The diagnostic interviews were conducted by four students in their last semester of the master's program in psychology, all of whom had had training in clinical patient work and CBT during their education. The student therapists received regular supervision from a clinical psychologist who worked at the participating clinic, Psykologpartners, and who was available to answer questions about their assessments and clinical work with participants. Eligible participants were randomized to either (1) an intervention group that received a 10-week transdiagnostic ACT treatment delivered through the internet ($n=27$) or to (2) a wait-list control group ($n=25$). The researchers responsible for randomization used the tool random.org. After randomization, the intervention group was given access to the 10-week treatment program. At the end of the treatment period, all participants were sent an email link to post-treatment measurement forms. Participants in the intervention group also answered questions about their treatment experience through the online link. All participants diagnosed with at least one anxiety disorder at the pre-treatment assessment were contacted by telephone at the end of the treatment period and completed another diagnostic interview with the MINI-KID instrument. Only the diagnoses confirmed at baseline were

screened for again. After the post-treatment assessment, participants in the control group were offered access to the treatment program, but with no active treatment support.

Intervention. The treatment period went from February to April 2020. Participants in the intervention group were treated for 10 weeks with the treatment program, Ångesthjälpen Ung (Anxiety Help for Adolescents; <https://www.kbtonline.se>; <https://angesthjalpen-ung.webnode.se/>), developed by the private psychology company Psykologpartners. Anxiety Help for Adolescents is an evidence-based transdiagnostic internet treatment based on ACT and CBT interventions to treat anxiety in young people (Fang & Ding, 2020; Gloster et al., 2020; Reynolds et al., 2012). The program is based on the ACT treatment structure designed by Hayes, Pistorello, & Levin (2012), with modifications specifically focused on anxiety (Eifert & Forsyth, 2005) and adapted to suit young people in accordance with the work of Bailey and colleagues (2012) and Hayes and Ciarrochi (2015). The content, overall structure, language level, concretization of theoretical concepts, and clinical examples in the program were adapted to suit the age and maturity of adolescents and young adults.

Participants in the intervention group were supported with weekly written feedback from one of the four participating master's students in psychology for this study, all of whom had training in clinical patient work and received regular supervision from the clinical psychologist who worked at Psykologpartners. The participants were also offered treatment support in a start-up call with their therapist and subsequent calls in the middle and at the end of the treatment. If participants stopped working with the treatment, the therapists contacted them via messages through the treatment program, email, or telephone to increase their motivation and compliance.

Measures. Outcome measures for anxiety (SCAS-S and GAD-7; Ahlen et al., 2018; Spitzer et al., 2006), quality of life (BBQ; Lindner et al., 2016), psychological inflexibility (AFQ-Y8; Greco et al., 2008), and therapeutic alliance (WAI-SR; Hatcher & Gillaspay, 2006) were collected at two time points, at the start and at the end of the treatment. Remission of diagnosis was assessed by the diagnostic interview MINI-KID (Sheehan et al., 2010) to reassess pre-treatment anxiety diagnosis at post-treatment.

Data analysis. Main analyses for outcome measures for anxiety, quality of life, and psychological inflexibility were based on the intention to treat by analyzing all participants that were randomized, and used multilevel modelling (MLM) for repeated measures, which were fitted with full information, maximum likelihood estimation, and an unstructured covariance structure. MLM was chosen to handle the dependency in the data since several observations were made for the same individuals and because it is an advantageous method

for dealing with missing data. The analyses tested the overall change over time in the intervention group and the interaction between the two groups, where time was included as a factor (pre- and post-intervention). We used a model with fixed effects for time, treatment condition, and time-by-treatment interaction effect. The time slope was modeled as a fixed effect due to the small number of data observations, which hampered the computation of random slopes, and since the significance test determined by -2LL did not show that a model with random effects for time was adequate. Within-group (Cohen's d_{RM} , pool) and between-group effect sizes (Cohen's d_s) were calculated on observed data. Effect sizes above $d=.20$ were interpreted as small, above $d=.50$ as medium, and above $d=.80$ as strong (Cohen, 1992). Complementary analyses for the main analyses were made based on repeated measures mixed analysis of variance (ANOVA), using last observations carried forward to deal with missing data as well as listwise deletion for analyses per protocol. Results from these analyses did not differ significantly from the main analyses.

The effect of the treatment on diagnosis remission was assessed using a chi-squared test of between-group differences in post-treatment diagnoses.

The relationship between psychological flexibility and severity of anxiety symptoms was assessed by comparing changes in psychological flexibility and changes in anxiety from pre- to post-assessment using Spearman's Rho coefficients (r_s). Correlations for patient- and therapist-rated alliance were assessed using r_s and by examining the relationship for i) expected alliance by using the scores for alliance estimates before treatment; ii) for alliance rated in the middle of treatment (week 3); and iii) for development of alliance by evaluating changes in alliance ratings between week 3 and week 7 in treatment, with the difference between pre- and post-measurement of anxiety estimates (assessed with SCAS-S). In addition, correlations for the three subscales of the alliance ratings (task, bond, goal) were examined. The same analyses as for the patient-rated alliance estimates were performed for the therapist-rated alliance.

Main findings

The overall results showed that the treatment was effective in increasing participants' reported quality of life and psychological flexibility, with moderate between-group effect sizes ($d_s=.65$ and $d_s=.51$, respectively). Participants in the intervention group were also significantly less likely to meet the criteria for any of their initial anxiety diagnoses after treatment (65%) than those in the control group (6.7%). However, the results showed no significant between-group difference over time for the participants' self-rated anxiety symptoms, but both the intervention group and the control group showed some improvements in their self-rated anxiety symptoms on the primary outcome measure SCAS-S between the pre- and post-assessments. Results furthermore showed

a strong statistically significant correlation between changes in psychological flexibility and changes in anxiety symptoms for the intervention group as assessed on both outcome measures for anxiety (SCAS-S; $r_s=.50$ and GAD-7; $r_s=.68$). The alliance was in general rated as high by both the participating adolescents and the therapists, which indicates that it is possible to create a positive alliance in internet-delivered treatments for adolescents. However, no significant associations were found between either patient-rated or therapist-rated alliance and treatment outcomes for anxiety in this study. Lastly, the participating adolescents found the treatment an acceptable intervention.

Conclusions

This study showed promising results for iACT treatment for adolescents with anxiety disorders. The results showed that the treatment was effective in increasing the adolescents' perceived quality of life and psychological flexibility, and it had a positive effect on post-treatment diagnoses in the intervention group. A strong association was found between changes in psychological flexibility and changes in anxiety symptoms, which indicates that psychological flexibility might be an important process to support during treatment. Future research should validate the findings from this Study In larger samples, in clinical settings, and using formal mediational analysis.

Study IV: Empowerment in primary care and psychiatric settings: A psychometric evaluation of the Swedish version of the Empowerment Scale.

Aims

The aim of Study IV was to conduct a psychometric evaluation of the Swedish version of the Empowerment Scale – Making Decisions (Rogers et al., 1997). The study examined the structural validity, dimensionality, and internal consistency of the scale in two populations of clinical patients in primary care and psychiatric care using confirmatory factor analysis (CFA).

Method

Procedure and participants. Participants consisted of two samples of primary care and psychiatric care patients seeking care for mental health problems. Participants for the primary care sample (sample 1, $n=210$) consisted of participants assembled from four different studies conducted within Swedish primary care between 2019 and 2023. The psychiatric sample (sample 2, $n=221$) consisted of participants from four different subsamples of patients in contact with Swedish psychiatric mental health services between 2002 and 2014.

Measures. Self-ratings for empowerment (the Empowerment Scale – Making Decisions; Rogers et al., 1997) were collected at one time point, before participants were taking part in any intervention.

Data analysis. Reliability measures were determined by coefficient Omega (ω) as well as Cronbach's alpha (α). The dimensionality of the scale was tested by using confirmatory factor analysis (CFA). Based on previous research, we identified four different CFA models that had been proposed for the scale: *model 1*: a five-factor solution based on the original 28 items; *model 2*: a five-factor solution based on 25 items; *model 3*: a five-factor solution based on 20 items; and *model 4*: a three-factor solution based on 25 items. See the manuscript for further descriptions of each model. We tested the four models in each of the two samples (primary care and psychiatric care). In addition, we added a one-factor solution applied to the original 28 items in the two samples. Apart from investigating goodness-of-fit statistics, the pattern and magnitude of factor loadings was inspected based on the factor weights.

Main findings

The one-factor solution yielded poor model fit in our two samples of participants from primary care and psychiatric care. Out of the previously proposed factor solutions, a three-factor solution with the dimensions *Self-esteem*, *Powerlessness*, and *Activism*, which has previously been proposed by Morris and colleagues (2014), entailed less complexity and the best model fit according to CFA in both our samples. However, this solution still did not provide an acceptable model fit in either of our samples, and some of the factor loadings were problematic. We therefore proceeded by refining the model that exhibited the most favorable fit in both samples. These model modifications were guided by our empirical findings. First, we removed items with factor loadings below .4 as well as items that cross-loaded on several factors. Second, we inspected the modification indices for further adjustments.

The adjusted model for the primary care sample (sample 1) resulted in a three-factor solution, with the dimensions self-esteem, powerlessness, and activism, based on 20 items and indicated an overall acceptable model fit: ($\chi^2(166) = 307, p < .001$), CFI = .90, TLI = .89, RMSEA = .06 (90% CI .05; .08), SRMR = .07. The adjusted model for the psychiatric sample (sample 2) likewise resulted in a three-factor solution based on 20 items, with the dimensions self-esteem, powerlessness, and activism. The items differed somewhat in relation to the model in the primary care sample but were overall similar. The model fit indices for the adjusted model in the psychiatric sample was poor for CFI and TLI, but RMSEA and SRMR were together more acceptable ($\chi^2(165) = 498, p < .001$), CFI = .87, TLI = .85, RMSEA = .10 (90% CI .09; .11), SRMR = .08.

Since there were just slight differences between the adjusted models for the two samples respectively, our last step involved removing the items that differed between the samples and refitting this model in the respective samples. This was motivated by a practical aim of arriving at a solution of the scale that could be used within health care contexts in general, whether in primary care or psychiatric care. The model fit indices indicated overall acceptable model fit for the primary care sample: ($\chi^2(131) = 240, p < .001$), CFI = .91, TLI = .90, RMSEA = .06 (90% CI .05;.08) and SRMR = .07. For the psychiatric care sample, the fit indices for CFI and TLI were still poor, but RMSEA and SRMR were acceptable and lower than our first adjusted model for the psychiatric sample, indicating somewhat better model fit.

Conclusions

The empirical results from this study gave a similar picture about the scale's dimensionality in both the primary care and psychiatric care sample. A refined version of the scale based on 18 items and a three-factor solution with the subscales Self-Esteem, Powerlessness, and Activism was put forward. The suggested factor solution remains relatively clear compared to the proposed solutions in previous research in our two samples of primary care and psychiatric care patients. However, overall, the results from this study reinforced the difficulties in measuring empowerment. The notion of empowerment is highly influenced by the context, and the fact that we could not replicate any of the previously suggested factor structures could be explained by factors such as different populations, settings, and statistical methods in previous studies. However, the findings showed little support for the unidimensionality of the scale, suggesting that the scale may better measure several related constructs rather than a unitary concept. Further research is needed to explore how empowerment can be conceptualized and measured within health care settings for patients with mental health problems, whether this is by a unified measure or by several different measurement instruments targeting different constructs.

General discussion

The common central theme of this doctoral thesis is the exploration and advancement of internet-delivered mental health interventions, specifically in the context of anxiety disorders. The thesis aims to enhance these interventions by considering ways in which the patient's role in treatment can be strengthened, and how the treatments can be adapted to the patient's preferences, experiences, and unique situation, in line with person-centered care and the third pillar of evidence-based practice. All but one study was conducted in primary care clinical practice, providing support for the feasibility of these interventions in the "real world" and making this thesis's contribution of direct clinical interest.

The principles for person-centered care indicate a need to look beyond diagnosis and illness and focus on the patient as a person, to personalize care rather than just follow a certain routine or a certain flow of care linked to a diagnosis (The Health Foundation, 2016). The present doctoral thesis stresses the principles of person-centered care by exploring different ways to personalize internet-based treatments. The personalization of treatment is achieved through the use of acceptance and commitment therapy, the patients' self-tailoring of treatment, exploring ways to create a trustful therapeutic relationship that endorses strengths and resources among patients, and focusing on enhancing patients' sense of control and empowerment. At the same time, the thesis takes a broader look at how to achieve patient influence in care. Through the incorporation of peer support and, additionally, cooperation with patient organizations, the provision and approach of health care may be transformed. Peer supporters are patients in recovery who have had their own experiences of being treated within various forms of mental health care. Thus, when patients gain insight into health care and the treatments offered, the larger perspective in policies regarding patient participation and influence in care is emphasized. Likewise, patients' experiences with treatment are emphasized by qualitative research methods, with the aim of amplifying the patients' voices and letting their experiences guide revisions and improvements in the development of future treatment interventions.

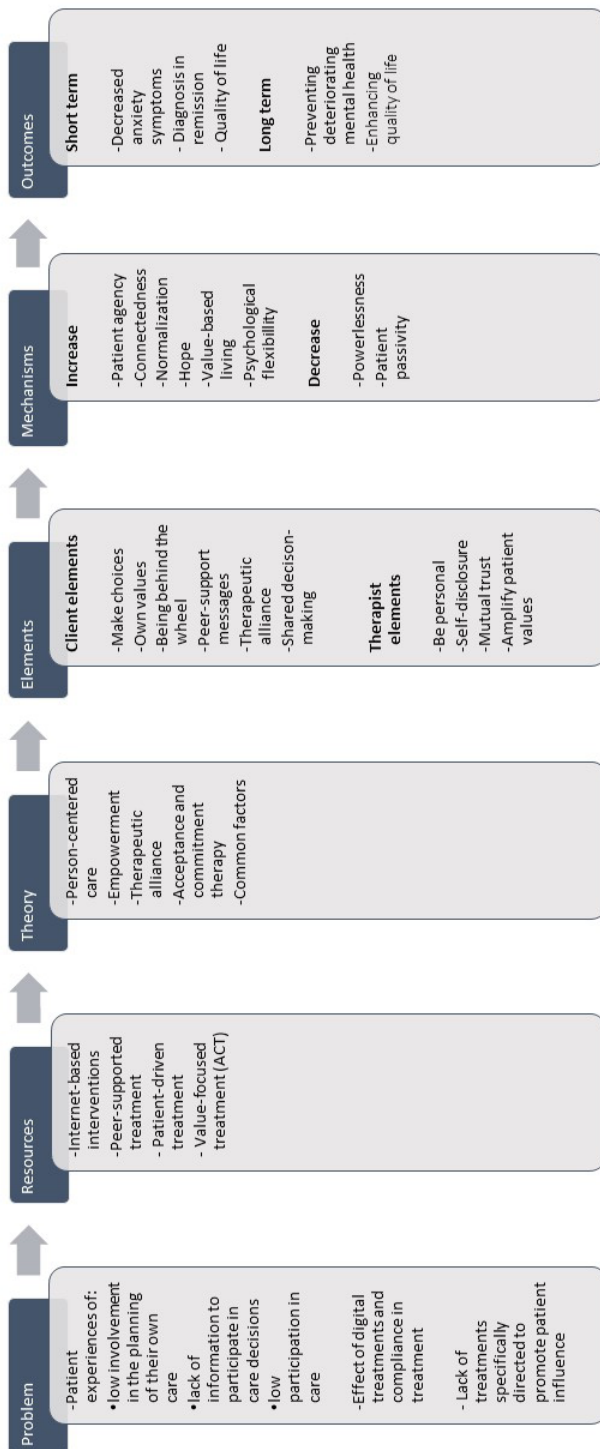
In the context of psychotherapy research, the notions of patient-centered, patient-directed, and patient-influenced care emerge as common factors. Common factors in psychotherapy refer to the overall factors that appear to be common to different therapeutic methods and that contribute to therapeutic changes (Wampold, 2015). There has been a resurgence of interest among researchers in investigating "common factors" within psychotherapy in recent years (Cuijpers, Reijnders, & Huibers, 2019). The hypothesis is that common factors may potentially account for a larger portion of the outcomes observed in

psychotherapy studies compared to specific therapeutic approaches. The various therapeutic approaches may seem different but perhaps may work through similar mechanisms (Cuijpers, Reijnders, & Huibers, 2019). Several aspects of treatment explored in the thesis, such as the emphasis on patients' choice in treatment decisions, the therapeutic relationship, and sense of control and empowerment, can be viewed as common factors in psychological therapy overall, regardless of specific methods such as CBT or psychodynamic therapy. The mechanism of psychological flexibility is closely related to ACT, although a holistic focus on the patient and emphasis on promoting the patient's values aligns well with a more general focus on person-centered care. This convergence underscores the significance of integrating patient-centric elements as common factors in therapeutic approaches, emphasizing the importance of tailoring care to individual needs, and fostering a collaborative therapeutic alliance.

Figure I shows the various interventions used within the PhD project and the theoretical assumptions underpinning the rationale for using them. The concrete elements used within the studies together create a holistic framework for patient-influenced psychological internet-based treatments. The elements are hypothesized to work through increasing patient agency, connectedness, and value-based living, which in the long term may enhance quality of life and prevent deteriorating mental health.

The remaining discussion explains the components of the model and seeks to answer the research question posed for this PhD thesis: *How can patient influence be conceptualized and integrated into acceptance-based internet-delivered CBT for anxiety disorders in primary health care?*

Figure I.



How can patient influence be conceptualized and integrated into acceptance-based internet-delivered CBT for anxiety disorders in primary health care?

Patient influence within the digital mental health treatments was fostered and conceptualized in several ways throughout the studies for this doctoral thesis.

Acceptance-based internet-delivered treatments

Studies I–III all incorporated the evaluation of internet-delivered treatments based on influences from acceptance and commitment therapy. Through the acceptance-based approaches to treatment within the studies, patient influence is fostered by emphasizing the patients' personal values and autonomy, and through this the active involvement of the patient in their own therapeutic journey. In ACT treatments, there is an emphasis on empowering patients in identifying their own values and finding out what is important in their lives. Another key aspect of ACT is its *universalism*; it is a transdiagnostic approach that is not targeted towards specific diagnoses but rather emphasizes the universal experience of being human and the suffering entailed within this. It focuses on ways to help individuals live fulfilling and authentic lives, regardless of their particular symptoms. Thus, there is a focus on seeing the whole patient, beyond the disease. Characteristic of ACT is also its focus on research on processes in therapy, and an extensive theory on mechanisms that produce therapeutic change (Hayes et al., 2022). Although in most psychotherapy methods there are theoretical thoughts on how the treatment works by targeting different processes of relevance for the outcome, less scientific evidence on these processes exists (Cuijpers, Reijnders, & Huibers, 2019; Mulder et al., 2017). The study of processes focuses on these theoretically derived and empirically tested mechanisms that are supposed to change during treatment and, because of those changes, result in positive treatment outcomes (Hayes & Hofmann, 2021; Kazdin, 2008). By learning about successful treatment processes, clinicians may be better equipped to tailor treatments to the specific needs of the patient in front of them to facilitate change, improve response to treatment, and improve patient adherence. Thus, through this, the therapy becomes personalized. Studying process variables and mechanisms of change may provide answers about which treatment methods work best for which individuals and form the basis for person-centered care and tailored treatment methods (Kazdin, 2008).

Hence, through the value focus and process-based transdiagnostic approach in ACT, the foundation for the treatment aligns well with the person-centered approach to care. Person-centered care is about involving the patient as a co-creator in care. The health care professional and the patient work together in a mutual partnership when making treatment decisions, and they seek to identify

and adapt the care based on the patient's goals and long-term values (The Health Foundation, 2016). The focus in health care shifts from asking the patient "what's wrong with you?" to "what's important for you?" (Swedish Association of Local Authorities and Regions, 2018). This is in alignment with the transdiagnostic focus in ACT and the addressing of common underlying mechanisms of change in therapy through process-based interventions. Process-based interventions are designed for person-specific contexts (what works for whom) in contrast to generic treatment protocols designed for specific diagnoses. Thus, within both the person-centered approach and the ACT approach there is a focus on seeing the whole patient and not just the disease; it is about personalizing care rather than just following a certain routine or flow of care linked to a diagnosis.

The use of internet-delivered treatment programs based on ACT for anxiety disorders is a relative new research avenue, but existing studies show preliminary support for the treatment (Kelson et al., 2019; Klimeczak et al., 2023). However, none of the studies included in these two meta-analyses targeted children or adolescents. In Study III we evaluated an internet-delivered ACT program for adolescents with anxiety disorders. The overall findings showed promising results in favor of the internet-delivered ACT treatment. The treatment was effective in increasing the participating adolescents' quality of life and their psychological flexibility. Moreover, it was clinically effective, since 65% of the participants no longer met criteria for their main anxiety diagnosis after treatment, compared to only 6.7% in the control group. In addition, almost three quarters of the participants (74%) felt that the treatment was an acceptable intervention and that they would recommend it to a friend with similar problems.

However, a limitation with this Study Is that the internet-delivered ACT intervention was tested against a wait-list control group. Wait-list control groups receive no treatment during the period of the experimental phase but typically receive the experimental intervention when the research period is finished (Mohr et al., 2014). Problems with wait-list control groups have been discussed. For example, it has been noted that participants on a waiting list are likely to just wait rather than do anything to try to solve their problems during the waiting period; these participants may improve less than those enrolled in an active control group, and also less than patients seeking no treatment at all (Cuijpers & Cristea, 2016; Mohr et al., 2009). A meta-analysis of randomized controlled trials for depression showed that studies using a wait-list control group produced significantly larger between-group effects compared to studies using care-as-usual and other control groups (Cuijpers, Karyotaki, et al., 2019). Further, when using a wait-list control group, it is not possible to fully rule out expectation, demand characteristics, attention, and other non-specific factors

as explanations for the differences between conditions (Cuijpers & Cristea, 2016). The choice of control condition thus impacts the outcome in randomized controlled studies, and future studies would preferably evaluate the internet-delivered ACT treatment for adolescents used in Study III against active control groups.

The primary goal of ACT treatments is to improve the patient's functioning by enhancing their ability to act in accordance with long-term values, which is termed "psychological flexibility" (Hayes et al., 2006). Therefore, ACT does not primarily aim for symptom reduction, and there is a theoretical possibility of an increase in symptoms when altering behaviors to align with long-term values. ACT underscores the acceptance of uncomfortable thoughts and feelings while simultaneously committing to actions that resonate with individual values. The findings in Study III showed increased functioning in terms of psychological flexibility, quality of life, and remission of diagnosis. However, no significant interaction effects between groups were found for self-rated anxiety. Through the lens of ACT, this may be an indication that although symptoms remained, possibly due to increased actions in line with long-term values, it is possible that they no longer posed functional impairment given remission of diagnosis, for which a main criterion is that symptoms pose functional impairments. However, there are also other plausible explanations, such as attention effects or spontaneous remission in the control group, or events related to the fact that the second half of the study period occurred at the same time as the outbreak of the COVID-19 pandemic, which may have affected both groups in various ways.

Yet, in Study III a strong statistically significant association was found between development of psychological flexibility and changes in anxiety symptoms for the participants taking part in the ACT-based digital intervention. The findings might thus be interpreted as giving some indication that psychological flexibility might constitute a fruitful mechanism of change in treatment, and that clinicians may find it beneficial to support this ability in their patients. However, the treatment processes in Study III for this doctoral thesis were investigated only through correlations. Because of this we cannot be sure whether improvements in psychological flexibility *caused* the observed anxiety improvements, nor can we control for other third variables that may be in play for how these two factors are associated. An avenue for future studies on internet-delivered ACT treatments for adolescents could thus be to investigate psychological flexibility as a mechanism of change in treatment by using formal mediation analysis (Cuijpers, Reijnders, & Huibers, 2019). The results, however, align with a growing evidence base of psychological flexibility as an important mechanism of action in ACT treatments (Stockton et al., 2019). Some examples of psychological flexibility as an important process variable

specifically in internet-delivered ACT treatments have previously been demonstrated in relation to patients with pain. For example, in a Swedish study of an internet-delivered ACT treatment for adult patients with chronic pain, significant time x group interaction effects for the iACT treatment group were found for psychological flexibility (measured with the Psychological Inflexibility in Pain Scale; Wicksell et al., 2008), as well as value progress and value obstruction. These measures were collected weekly and support the notion that these could potentially be important processes in treatment (Rickardsson et al., 2021). In another study using formal mediation analyses, psychological flexibility, measured with AAQ-II, was found to mediate improvements in all outcomes of an online-based ACT, such as pain interference, physical functioning, and health-related quality of life as well as anxiety and depression (emotional functioning; Lin et al., 2018).

Self-tailored internet-delivered treatment

Another approach to conceptualizing patient influence is tested in Study II by letting the patients self-tailor elements of their internet-delivered treatment. There are several approaches to the personalization of psychological treatments. One approach includes individually tailored treatments, where treatment components such as content, intensity, and style of delivery are matched to the specific needs of the patient (Nye et al., 2023). The effects of tailored treatment compared to standardized treatment showed an overall middle-sized effect in one recent meta-analysis ($d=.37$). Previous research has investigated tailoring, where the treatment content is adapted to each patient, in relation to ICBT (Berger et al., 2014; Carlbring et al., 2011; Nordgren et al., 2014; Silfvernagel et al., 2012; Silfvernagel et al., 2018). Yet another approach to personalization of psychological treatments is treatment matching, where treatments are matched to the patient's individual needs, for example, based on the specific symptomatology, personality traits, or previous treatment experiences (Cohen & Harris, 2023).

However, none of these approaches necessarily incorporate the individual's own wishes and preferences when deciding upon treatment adaptations. Since evidence-based practice and person-centered care include incorporating patients' preferences in the selection of treatment when several effective treatments exist, and in general treatment decisions when adapting treatment content and structure (The Health Foundation, 2016; American Psychiatric Association, 2006), it may be important to investigate aspects of how to tailor the treatment based on the patient's preferences. Preference studies focus on understanding the individual's own wishes and preferences regarding treatment, and findings from such studies suggest that acknowledging the patient's

preferences is of relevance for treatment outcomes, treatment completion, working alliance, and treatment satisfaction (Delevry & Le, 2019; Lindhiem et al., 2014; Mergl et al., 2010; Williams et al., 2016; Windle et al., 2020). To date, a few studies have investigated self-tailored ICBT, where the patients themselves individualize their treatment based on their preferences (Andersson et al., 2011; Andersson et al., 2023; Dahlin et al., 2022).

Study II involved self-tailoring and the acknowledgement of patient preferences in that the participants were offered different choices regarding how to carry out their treatment. The participants had all been diagnosed with an anxiety disorder during the assessment interview for the study, but they could decide which treatment program they wanted to go through. The programs targeted different main problems, including anxiety, worry, depression, stress, and sleep problems. The participants also decided on the amount of written and telephone support they would get from their therapist, the length of the treatment program (in terms of number of modules/chapters), and the order in which they wanted the modules presented. Finally, they decided on the pace of the treatment in terms of how often they wanted to receive new modules and the total number of weeks it would take to finish the treatment. Thus, by inviting patients to be involved in the planning and decision making regarding their own treatment, patient influence was fostered.

The overall results of Study II indicated that it is an acceptable and feasible intervention to let patients control and choose elements of their own treatment. Both treatment groups improved in main symptoms of anxiety and secondary symptoms of depression and general disability. Patients' sense of empowerment improved in both groups from the start of treatment to a 3-month follow-up. Participants in the patient-driven group experienced greater control over their treatment and a larger reduction in anxiety symptoms over time. The preliminary results thus indicate that it is equally effective to let patients self-tailor their own ICBT treatment as the standard procedure in which the therapist chooses the treatment program and decides on the structure of the treatment. However, to investigate equivalence between two treatment methods, a much larger sample size would be needed than was used for this study (Cuijpers & Cristea, 2016). The results could thus be interpreted as a preliminary indication that patient-driven ICBT treatments may be as effective as the standard approach with "therapist-driven" treatments, but future studies with larger sample sizes are needed to be able to draw any firm conclusions.

The results from Study II are in line with a recent factorial design randomized controlled trial comparing (among other factors) a self-tailored and clinician-tailored condition in ICBT treatment for participants with depression (Andersson et al., 2023). Results in that study showed that both conditions produced similar treatment outcomes, with a small but statistically significant

between-group effect in favor of the self-tailored condition ($d=0.26$). Like in the study by Andersson and colleagues (2023), Study II involved tailoring content, while many other preference trials within the mental health field have involved more general choices, such as choosing between psychotherapy and medication, or choosing the type of psychotherapy, such as CBT or psychodynamic therapy. Yet in the study by Andersson and colleagues (2023), the participant choices were limited to deciding between available treatment modules, thus tailoring only the content of the treatment program. Study II for this thesis extended the patient choice even more to also include decisions on the treatment's structure, such as amount of therapist contact and number of weeks per module, along with tailoring the treatment content. Although, in theory, the more factors that can be influenced, the greater the control the patient may have over treatment, a limitation with the design in Study II is that we cannot draw conclusions about which of the choices, if any, were more significant for the outcome than others. Relatedly, we cannot separate effects caused by the act of choosing from effects due to these choices' consequences. For example, although all participants for the study had been diagnosed with an anxiety disorder, the participants in the patient-driven experimental group could choose between all available treatment programs offered at the participating ICBT clinic, targeting different mental health problems, while participants in the standard group received the anxiety program by default as was the standard procedure at the clinic. We hypothesized that this choice, like the other choices, would contribute to an increased sense of control, which in turn could affect treatment outcome. However, another possibility is that the participants' choice of another treatment program may have led to their being exposed to other therapeutic content, which may have affected the treatment outcome per se. In the end, the results showed that only a few of the participants in the patient-driven group chose a treatment program other than the anxiety program, so this is probably not the explanation for the observed difference in improvements in anxiety symptoms between the groups. However, these and other possible mechanisms or causal pathways, for example, the frequency in receiving new modules, cannot be separated from each other given the study design used in Study II.

The results in Study II further showed that the patient-driven condition did not differ much in terms of participants' choices compared to the default treatment structure received by the standard condition. The choices that differed most from standard treatment were contact with therapist (over half of the participants in the patient-driven condition wanted more frequent contact) and more time to complete the treatment (about 10%). To increase the power and strength of the study design, one improvement in future studies might be to give participants more elaborate tools for facilitating their decision making.

Andersson and colleagues (2023) found that participants in the self-tailored condition made unique choices about the treatment content compared to when clinicians chose the modules. In that study, the participants were able to read a brief description of each module's content before making their choices. In Study II, the choice of treatment elements was made during a 15-minute randomization call, and only verbal information was given about the content of treatment programs and modules. Thus, participants may need more elaborate information, possibly in written format, and more room for discussion with their clinician about the different treatment choices to maximize the effect of choosing. For example, participating therapists at the clinic indicated that several participants expressed that it was difficult to make treatment decisions before having any notion or experience of what the treatment would be like. However, as opposed to the hypothesis that participants may need more information before making their choices, a meta-analysis found that the beneficial effect of receiving one's preferred treatment was equal regardless of whether participants were given information about the different treatment options before making their choice compared to a more uninformed choice (Lindhiem et al., 2014).

In Study II, allowing patients to choose elements of the treatment influenced the outcome in that the patient-driven group experienced greater control over the treatment and had greater improvement in anxiety symptoms over time. This is an interesting finding in that patients may not be experts in terms of knowing what treatment they need, but the feeling of control matters. It is well known from placebo studies that the expectation of benefiting from a treatment can affect the actual outcome of the treatment. Patient participation in treatment decisions may thus be a means for boosting expectation effects in patients and hence the outcome of treatment. Some preference studies have compared *preference effects* to *choice effects* to determine whether the act of choosing in itself is beneficial beyond receiving a preferred treatment (Lindhiem et al., 2014). In such studies, a double randomized controlled design is used, where participants in a first step are randomized to choose treatment or not. In the second step, those randomized to the non-choice group are re-randomized to a treatment. The choice and non-choice groups are then compared, when controlling for treatment effects (Lindhiem et al., 2014). However, in one meta-analysis of preference studies, the positive effects of receiving one's preferred treatment were consistent regardless of whether participants actively chose their preferred treatment or were randomly assigned to it (Lindhiem et al., 2014). This suggests that the act of making a choice itself may not necessarily have any added benefit to the outcomes. This meta-analysis included studies evaluating preferences for different treatments for mental illness, including medication as one option. In Study II, self-tailoring of the

treatment was used, which may be understood as a blend of preference studies, which often investigate the effect of choosing between two or several treatments (Delevry & Le, 2019), and tailored treatments, where components of a specific treatment are tailored based on the specific needs of the individual (Nye et al., 2023). One might speculate as to whether the act of choosing thus has greater significance within a self-tailored treatment where the choices are connected to psychological treatments only, as well as connected to decisions about the structure and treatment support of the treatment.

The results from Study II align with research that underlines the importance of considering patient preferences regarding treatments for mental health and their association with treatment outcomes (Delevry & Le, 2019; Lindhiem et al., 2014; Mergl et al., 2010; Swift & Callahan, 2009; Swift et al., 2018; Williams et al., 2016), treatment completion (Lindhiem et al., 2014; Swift et al., 2018; Windle et al., 2020), working alliance (Windle et al., 2020) and treatment satisfaction (Lindhiem et al., 2014). However, the research is not uniform, and a recent study conducted within Swedish routine psychiatric care ($n=217$) found no relationship between receiving a preferred treatment and treatment outcomes, in the context of choosing between CBT and psychodynamic therapy for panic disorder (Svensson et al., 2021). As opposed to other preference studies, most of which have investigated treatment preference effects in relation to preferences for psychotherapy or psychopharmacology, that study was one of the first to examine preference effects between two branches of psychotherapy. Consequently, and given that the results from that study differ from existing meta-analyses on the topic, the researchers suggest that the benefit of receiving one's preferred treatment may be less when the choice stands between two evidence-based psychotherapies (Svensson et al., 2021).

Integrating patients' experiential knowledge in treatment

Another way patient influence is fostered within this thesis's frame was through incorporating lived experiences and patients' experiential knowledge into the treatment through peer support workers. Strategic policy documents for Swedish health care call for more user participation and cooperation with patient organizations and patient representatives in organizational development of health care and participation in the design of health care services (Swedish Association of Local Authorities and Regions, 2018). Thus, in a broader perspective, the use of peer supporters in health care and cooperation with patient organizations can affect the provision and approach of health care. Peer supporters are patients in recovery with lived experience of mental health problems, as well as experiences of being or having been mental health care users. They are employed within the health care sector to support patients based on their own experiential knowledge (Fortuna et al., 2022). Through patients

gaining insight into health care and the treatments offered, the larger perspective in policies regarding patient participation and influence in care is emphasized. For example, peer support services have been found to alter the organizational climate towards a more recovery-oriented approach in Swedish psychiatric care (Rosenberg & Argentzell, 2018). It has also been found that the presence of PSWs at the psychiatric care units enhanced the relationship between health care professionals and patients, affected the health care personnel's attitudes towards the patients, and contributed to patients' willingness to engage in their treatments (Rosenberg & Argentzell, 2018).

Yet, it was hypothesized that letting patients' own experiences become part of the treatment would benefit the participants taking part in the internet-delivered treatment and increase their sense of empowerment, belonging, and hope. Theoretical models of PSWs state that they may function as role models for the patients; by sharing their experiential knowledge and their own journeys to recovery, they might create hope and empower patients to become actively engaged in their own self-care (Fortuna et al., 2022). Core competencies identified to guide peer supporters' work have been put forward (SAMHSA, 2015). The support provided by the peer supporter is recovery oriented, focusing on eliciting autonomy, strengths, and resources among those they serve, recognizing that there are several ways to achieve recovery and empowering patients to choose for themselves (Farkas & Boevink, 2018; SAMHSA, 2015). It is, moreover, relationship focused, in that it recognizes that it is the relationship between the peer supporters and those they serve that is the foundation for the support. The support is based on collaboration and mutual trust, empathy, and equality based on shared experiences. It is also trauma-informed in that it seeks to create a safe environment where patients can build a sense of control and empowerment (SAMHSA, 2015). Thus, peer support services work to create an environment where people receiving support feel understood and accepted, which can foster a deeper and more meaningful path to well-being. In summary, the overall core competencies of PSWs, together with the theoretical therapeutic assumptions of fruitful mechanisms of change underpinning peer support, align with a focus on patient influence in treatment. Peer support interventions may create a unique opportunity for individuals to share their experiences and perspectives, which can influence care. The recovery-oriented focus, emphasizing individual autonomy, strengths, and resources and going beyond symptoms alone, may contribute to a more tailored and person-centered approach.

Study I explored the incorporation of peer support in health care by testing the feasibility of adding PSWs in an acceptance-influenced internet-delivered CBT treatment for anxiety disorders. To our knowledge, this is the first study trying this arrangement in primary care. To date, PSWs have mainly been

tested within psychiatric care (Rosenberg & Argentzell, 2018; Wenzer, 2018), and trying PSWs in a Swedish primary care setting is new. Moreover, the incorporation of PSWs in digital mental health is a relatively new field, although a recent systematic review on the subject concluded that digital peer support services appear feasible and acceptable to patients (Fortuna et al., 2020). Apart from peer support services, the patient influence in Study I was additionally highlighted by the, in part, qualitative design of the study, in which the patients' experiences and opinions on the treatment were voiced. Patients' experiences with treatment are increasingly recognized as a central aspect of health care quality, together with more traditional measures such as clinical effectiveness and patient safety (European Observatory of Health Systems and Policies, 2019). A systematic review of studies including a range of diseases (mostly somatic diseases), clinical settings, population groups, and outcome measures found consistently positive associations between patient experiences and clinical effectiveness (Doyle et al., 2013). Positive patient experiences with health care were linked to both objectively measured and self-rated physical and mental health outcomes, adherence to and compliance with treatments, hospital and primary care visits, and adverse events (Doyle et al., 2013). Thus, a significant aspect of patient influence is also to assess patient experiences with treatment and obtain feedback from participants and let this guide future revisions and improvements of health care interventions.

The main finding in Study I was that it was feasible to incorporate PSWs in ICBT treatments for anxiety and that the intervention was well received by participants in a small sample of primary care patients. The qualitative results showed that the participants appreciated the support of the PSW. The participants appreciated being able to share experiences with the PSW and felt that the relationship was more personal than with usual health care professionals. It can be speculated that, because of the nature of the treatment medium and the physical absence of a therapist, ICBT might demand more self-discipline and personal responsibility from the patient in implementing the interventions in one's own life. Key elements of peer support interventions are the focus on strengthening the patient's resources and creating hope and a sense of belonging based on shared lived experience of mental health problems (Farkas & Boevink, 2018). Thus, the disclosing of mutual experiences and the feeling of a personal relationship might counter this fact. The qualitative results in Study I supported this notion. Participants expressed that the treatment medium placed them behind the wheel, which for some participants felt empowering, although for others, it felt too demanding. The idea of the peer supporter as a role model was supported in that participants expressed how contact with the peer fueled hope and made them see that it is possible to recover. The contact with the peer supporter was described as more personal compared to that with

traditional health care professionals, based on having mutual experiences of mental disease. The peer supporter was seen as a fellow human being who could understand patients' problems differently based on having their own experiences. This aligns with proposed theoretical processes of peer support services, such as social support and social learning theory, creating relatedness and autonomy (Fortuna et al., 2022), and peers being able to function as role models who provide hope to the patients (Solomon, 2004). It additionally aligns with prior studies where participants described how the contact with the peer supporter felt more nonjudgmental and reduced self-stigma, contributing to a sense of being able to talk more openly than with other health care staff (Rosenberg & Argentzell, 2018). There are also some indications that patient ratings of working alliance may be higher with PSWs than with ordinary mental health professionals (White et al., 2020).

There are limitations to Study I that should be considered. The results are based on only nine participants, eight of which took part in the interviews, whereas a larger Study Including more participants would have provided a richer understanding of patient experiences of peer-supported acceptance-influenced ICBT treatments. Consequently, the qualitative findings from this study cannot claim transferability to other settings, although they may guide the development of future internet-delivered peer-supported interventions. Additionally, it is debatable whether quantitative analyses provide meaningful information when applied to such a small group. However, a strength is that these measures were complemented with clinical measures of remission of diagnosis and improvements based on normative cut-offs for symptom severity. From a design perspective, the study was an uncontrolled feasibility study which included no control group, and it would be interesting to compare experiences of patients receiving peer-supported ICBT with patients receiving standard CBT with only therapist support. In Study I, each participant had support from both a PSW and a clinical psychologist. The therapists, however, were instructed to primarily let the PSW provide emotional support to facilitate the creation of a therapeutic alliance between the patient and the PSW. The therapists thus tried to limit their own role to practical tasks such as opening new treatment modules and monitoring the safety of the treatment. However, with this approach, the interpretation of the results might be questioned as to whether the benefit the participants felt from the PSW's support was due to unique functions of the peer support; it is possible that the participants would have similarly benefited from emotional support had the alliance been with the therapist instead of the PSW. Research shows that guided ICBT is more effective than unguided (Baumeister et al., 2014); however, there is also some evidence that the qualification of the therapist providing support might be of less importance in ICBT (Baumeister et al., 2014). This might be because the guidance is often of a

more practical and supportive nature rather than purely therapeutic (Andersson & Titov, 2014). In addition, since only two PSWs were employed for the study, there is a risk of bias in that the participants' experiences were colored by these individual PSWs' personalities and abilities. According to social learning theory, watching similar others influences notions about one's own abilities (Bandura, 1977). Social learning is more likely to take place when the observer can relate to and identify with the model (Bandura, 1977). This aligns with research on peer support interventions, which shows that, for peer support services to be effective, it is important that they reflect cultural diversity (Solomon, 2004). Indeed, a couple of participants in Study I described how they had wished to know more about the peer supporter's background and experiences to facilitate connection with each other.

Patient empowerment and sense of control

The renewed declaration of primary health care states that primary care should work to empower patients to make their own decisions about issues concerning their health (WHO and UNICEF, 2018). Empowerment is thus closely related to the practice of person-centered care and is of interest for this doctoral thesis as a means for conceptualizing and assessing patient influence. Although empowerment theoretically may be an important aspect to foster in internet-delivered treatments, the results from Study IV shed light on the complexity entailed in this concept and the difficulties in measuring it.

A hope for Study IV was to contribute to the search for a measurement tool capable of assessing the impact of primary care settings and interventions on patient empowerment. However, in synthesizing research on empowerment, there is considerable inconsistency in defining and measuring the concept, as well as overlap of related terms (Acuña Mora et al., 2022; Barr et al., 2015; Cyril et al., 2016; Fumagalli et al., 2015; Joseph, 2020; Noordink et al., 2023). In Study IV we therefore sought to contribute to the evaluation and refinement of one of the existing measurement instruments for empowerment within the mental health field: the Empowerment Scale – Making Decisions (Rogers et al., 1997).

Study IV illuminated the scattered results from previous studies investigating the scale and its factorial structure. The overall implications from the empirical results of Study IV were that it is doubtful whether the scale represents a single empowerment construct, and it may more accurately measure several related constructs. This makes it problematic when calculating a single empowerment score from the scale for clinical practice. Additionally, we found that none of the previously proposed factor solutions of the scale, presenting different subscales, could be confirmed in our two samples of either primary care or psychiatric care patients. This could be explained by the different

contexts in which the scale has been evaluated, for example, in different countries (the United States, the Netherlands, Portugal, and Sweden), on different patient populations (psychiatric inpatients or psychiatric outpatients), or using different statistical methods to arrive at the factor solutions (principal component analysis/CFA, orthogonal/oblique rotation; Castelein et al., 2008; Corrigan et al., 1999; Hansson & Björkman, 2005; Jorge-Monteiro & Ornelas, 2014; Morris et al., 2014; Rogers et al., 1997; Rogers et al., 2010; Wowra & McCarter, 1999). However, difficulties in arriving at a coherent factor structure across studies may also reflect the fact that empowerment is a multifaceted and complex concept, which has been theorized on, used, and researched across fields sprung from different theoretical domains.

Thus, to assess patient empowerment in different primary care contexts or as an outcome of health care interventions, it remains an open question of how best to measure this. The findings may align with the view that it is hard to develop a one-size-fits-all measurement of empowerment. The notion of empowerment may be highly influenced by the context in which it is used and the population being considered. Consequently, some researchers have emphasized that empowerment instruments need to be specifically developed and adapted to the context in which they will be used (Joseph, 2020). Other aspects likely become more adequate when assessing patient empowerment in a health care relationship than some of the aspects measured in the scale developed by Rogers and colleagues (1997). Consequently, it may be an inquiry for future research to develop instruments adapted specifically for health care settings in the context of the mental health field. Based on the findings of Study IV, it remains an open question whether such an instrument would assess patient empowerment, or whether this is such a multifaceted concept that it would better measure several related concepts to assess patient agency and sense of influence over one's health care. Future research would also benefit from exploring how patients in various health care settings perceive patient agency and factors influencing this. This could serve as a means for developing a useful instrument that could assess health care practices and interventions for person-centered care.

Nevertheless, the results from the thesis studies provided some indication that the interventions could be an effective way to strengthen patients' sense of control and agency in treatments. First, the format of internet-delivered treatment programs, which are largely built on self-help with limited therapist support, may promote patients as active agents of their own care. Considering that there is less therapist contact than in traditional face-to-face therapy, more responsibility is placed on the patient to actively engage with the treatment content by logging on to the treatment platform, engaging with text, video, and audio clips, and carrying out possibly demanding homework assignments such

as exposure and behavioral experiments. It can thus be speculated that, by going through the treatment, patients' feelings of being responsible for their own well-being and improvements in mental health may consolidate. This speculation aligns with the results in Study I, where participants described how the digital treatment format with limited in-person contact made it clear that they were the ones who had to deal with their problems, which felt reinforcing.

Second, the patient-influenced parts in Study I and Study II, through peer support and patient-driven choices about their treatment, were hypothesized to strengthen patient empowerment. Study I provided some qualitative evidence that the treatment contributed to an increased sense of agency. This was connected to the treatment format itself but also to the peer-supported part of the treatment. The participants described how the decision to start treatment increased their sense of agency. They further expressed that the treatment medium placed them behind the wheel, empowering them to see their own abilities in carrying out treatment change. Some described how the treatment created a positive feedback loop, and when they gradually started doing things they had previously avoided, they felt more self-confident. Through the peer supporter, the participants described how sharing experiences strengthened them by making them realize that it is possible to feel better, and they expressed that they felt less alone knowing they were not the only ones dealing with anxiety problems.

In Study II, outcomes based on the scorings of the Empowerment Scale (Rogers et al., 1997) showed no significant time x group interaction effect, but both groups improved in their scorings on the Empowerment Scale over time. A consideration regarding Study II is that empowerment was measured at pre-measurement, before the participants had started the treatment but after the participants in the patient-driven intervention group had made their choices regarding the treatment structure. The opportunity to influence treatment and make choices might in itself affect the feeling of empowerment, however. Thus, there may be statistically less room for improvement in scorings on empowerment for the patient-driven group over treatment and time. This could be a consideration for future studies, which should investigate empowerment measured before giving participants the option to decide on their treatment. Since no interaction effect was found between the groups on empowerment, it did not seem relevant to explore empowerment as a mediating factor in treatment, even though the study was designed for this. However, through correlation analyses, a medium-strong association was found between changes in scorings on the Empowerment Scale (Rogers et al., 1997) and improvements in anxiety from pre- to post-treatment when looking at both treatment groups combined, giving some indication that empowerment as scored on this scale may play a role in treatment outcomes in internet-delivered treatment

programs. However, through correlation analyses it is not possible to draw any firm conclusions about increased empowerment causing improvements in anxiety other than that there was a relationship.

Related to the concept of empowerment, we also assessed group differences in patients' sense of control over their treatment in Study II. This was done with a measurement form developed specifically for Study II that included questions such as "How much impact do you feel you have had on the overall treatment plan?", "How much impact do you feel you have had on the content of the treatment?", and "Would you have liked to have more influence over the structure of the treatment?" Results showed that the patient-driven group scored significantly higher on these questions post-treatment than the standard ICBT group. Thus, future research could investigate whether a measurement instrument with similar questions could be a way to examine patient agency in relation to health care interventions.

The therapeutic relationship

Within the lens of patient influence, the working alliance is of relevance for creating a mutual and respectful relationship where the therapist and patient work together to achieve the best possible treatment outcomes, focusing on the patient's individual needs and preferences. A trustful therapeutic relationship paves the way for shared decision making and more possibilities for patients to be actively involved in their care, and to receive individualized treatment. Alliance is a much-researched process variable that has consistently been shown to have a predictive value for therapeutic change in face-to-face treatments (Flückiger et al., 2018; Karver et al., 2018). However, the role of the therapeutic alliance in internet-delivered treatment programs is less clear (Andersson, 2018). Research shows that guided ICBT is more effective than unguided (Baumeister et al., 2014), but little is known about what makes for effective guidance in internet-delivered treatment programs.

Although not a measure of alliance, Study I explored the nature of the therapeutic relationship between patients and the PSWs through qualitative interviews with the patients. The qualitative findings in Study I supported the notion that the therapeutic support matters. Internet-delivered programs provide little personal contact and may therefore appear more effortful to patients. The participants expressed the usefulness of having the peer supporter checking in on them regularly and reminding them about the treatment work. The peer supporters were also seen as giving a sense of legitimacy to the program by making it feel more real when there were "real people" in it. The examination of the text messages exchanged between peer supporters and participants in the treatment program showed that the peer supporters effectively used self-disclosure by sharing their own life experiences, particularly in dealing with

challenges. Additionally, they offered personal reflections on the treatment program's content and tools that they found beneficial. The value of this approach was reinforced in the participant interviews, wherein many participants highlighted the personal connection they felt when they could confide in someone who had gone through experiences similar to their own. Drawing from these empirical results, a theory is that one potential element contributing to effective guidance in internet-delivered treatment programs may involve the incorporation of personal and self-disclosing messages. Such an approach could boost the emotional bond between the patient and therapist, thereby making the standardized treatment program feel more personal and adapted. This may counter the absence of in-person interactions and alliance-forming factors such as body language, tone, and implicit validation strategies. An implication for clinicians working with internet-delivered treatments might thus be to be more personal and self-disclosing in their messages in the treatment program. Self-disclosure, together with affirmation (validation) and encouragement, was also found to correlate positively with adherence and improvements from therapy in a study on therapist behaviors in ICBT for depression (Holländare et al., 2016).

In Study III, the association between rated alliance and treatment outcomes was explored. A hypothesis was that treatment outcomes could be enhanced by nurturing the therapeutic alliance and instilling hope and expectations in the youth that the treatment would be beneficial, and that it would strengthen their engagement with treatment. Nowadays, young people frequently communicate digitally through text messages, messenger apps, social media, and computer games, making a virtual therapeutic relationship seem suitable in treatments with adolescents. The results from Study III showed that the adolescents generally rated the alliance with the therapist as high. This indicates that it is possible to create a supportive working alliance with adolescents in an internet-delivered treatment format. This aligns with prior research on alliance in ICBT for adults, which shows that the alliance estimates are generally high in such treatments (Andersson, Titov et al., 2019, Vernmark, 2017). It thus seems like the treatment format plays a smaller role for the development of alliance. The alliance ratings of participants taking part in an internet-delivered treatment for depression did not differ whether they received therapist contact through e-mail or telephone (Lindner et al., 2014), and some studies have shown that alliance ratings are comparable to those in face-to-face therapy (Berger, 2017).

However, no significant relationship between either patient-rated or therapist-rated alliance during treatment and treatment outcomes for anxiety was found in Study III. Prior research on alliance in ICBT for adults shows mixed results with regard to its associations with outcome (Andersson et al., 2012; Andersson et al., 2018; Andersson & Titov, 2014; Carlbring et al., 2018;

Vernmark 2017), although two recent meta-analyses conclude that alliance is indeed associated with outcome (Kaiser et al., 2021; Probst et al., 2019). Probst and colleagues (2019) analyzed correlational studies and found a relationship of $r = 0.252$ with outcome, and that the subscale of task correlated higher with outcome than the subscale of bond (Probst et al., 2019). Kaiser and colleagues (2021) found a small and significant overall weighted effect size between alliance and mental health outcomes ($r = .203$). The majority of the included studies evaluated therapist support through emails (which is the most common type of therapist support in ICBT treatments), although some studies provided therapist support through telephone, video, or chat (Kaiser et al., 2021).

One explanation for the mixed results on the predictive relationship of alliance in internet-delivered treatment formats, and the lack of evidence for a relationship with outcome in Study III, could be that alliance is of less importance for the outcome in such treatments due to the largely self-help format of the treatments. However, another consideration is that many of the prior studies on alliance in internet-delivered treatments have suffered from low power, which affects the possibility of detecting significant relationships (Berger, 2017).

Yet another explanation could be that other measurement instruments are needed to capture the unique aspects of alliance-forming factors in internet-delivered treatment formats, as opposed to face-to-face treatments. Some authors have proposed that since internet treatments involve less contact with the therapist, the patient may create an alliance with both the therapist and the treatment program itself (Andersson et al., 2012). The treatment programs are often designed with alliance building content to create user-friendliness, and the self-help text and videos may display understanding and empathy and create a sense of normalization and hope. It is therefore suggested that more refined measurements might be needed to capture all the aspects of alliance in ICBT and to be able to assess whether they are of any relevance for the outcome (Andersson et al., 2012; Probst et al., 2019). In one study, the measurement used to assess working alliance, the Working Alliance Inventory (WAI-SR; Munder et al., 2010), was adapted to better suit the internet-delivered format and asked for the participants' agreements with respect to the goal and task subscales in relation to the self-help program, as opposed to in relation to the therapist. Findings showed moderate and statistically significant associations with the subscale task when rated early in treatment and outcome in a standardized disorder-specific treatment group (as opposed to a treatment group receiving tailored treatment), supporting the hypothesis that alliance in internet-delivered treatments is better captured through other adapted measurement instruments (Berger et al., 2014). Relatedly, there are some indications that some of the aspects of the working alliance are more relevant than others with respect

to internet-delivered treatments. A narrative literature review concludes that, when looking at subscale analyses of existing studies, many studies show no statistically significant association between the subscale for bond and outcome, while meaningful and statistically significant associations have been found between ratings on the subscales for goals and tasks with outcome (Berger, 2017). Zagorscak and colleagues (2020) likewise found that the task and goal ratings predicted therapy outcome, but not the bond rating (Zagorscak et al., 2020). In a recent meta-analysis of correlational studies, which found support for the idea that alliance is associated with outcome in internet-based treatment programs also, the subscale of task additionally correlated higher with outcome than the subscale of bond (Probst et al., 2019). The affective bond between the patient and the therapist thus may be of less importance in internet-delivered treatments, as opposed to in face-to-face treatments. Yet another consideration that has been proposed is that different participants use the message function in the treatment program differently and to different extents, and consequently that the bond aspect of the alliance ratings may be more relevant for some participants than others (Berger, 2017).

Although not significant, the results in Study III showed a trend towards significance ($p=.06$) and a nearly moderate strength association between patient-rated *expected* alliance before treatment and treatment outcomes ($r_S=.39$). Subscale analyses also revealed that patient-expected *bond* and *task* had a significant and moderate relationship with outcome. These results may be compared to a study showing that expectations about treatment had an influence on alliance ratings measured in the middle of treatment (Zagorscak et al., 2020). Future studies could therefore explore whether it is important to create high expectations in the patient before treatment, and whether motivational aspects of the task of treatment are of special importance in internet-delivered treatments. Most studies on alliance in internet-delivered treatments have been efficacy studies, which specifically recruit research participants; this was also the case in Study III for this doctoral thesis, and consequently there is a need to investigate the role of alliance in internet treatments delivered in routine care (Berger, 2017). Future studies would thus benefit from further investigation into which practices or therapist behaviors are beneficial for creating strong working alliances in internet-delivered treatments. Research questions such as these can help inform therapist considerations when working with internet-delivered treatments in routine clinical practice.

Methodological considerations and limitations

Below is a discussion of some broad methodological considerations that apply to some or all of the included studies in this doctoral thesis and which need to be kept in mind when interpreting the results.

Effectiveness studies and complex interventions

Both Study I and Study II for this doctoral thesis are effectiveness trials; that is, they are conducted within real-world conditions, in clinical practice (Möller, 2011). The fact that the research is carried out in the real world, on real patients seeking primary care because of their anxiety, is partly a strength. Most controlled trials within psychology have traditionally been “efficacy studies”, performed under strict research criteria where the included patients are recruited specifically for the study, for example through ads, and have a well-defined problem (Möller, 2011). Efficacy studies are usually considered phase one when evaluating interventions (Kazdin, 2008). Within this type of research design the treatment methods are evaluated based on a highly standardized treatment format, with, for example, a fixed number of sessions and standardized content for each session, which might differ considerably from the clinical practice (Kazdin, 2008). The clinicians treating the study participants may be included because of their specific competence in the method being evaluated, and they are nevertheless trained for the specific protocol, working under supervisors and being monitored for their allegiance to that method (Cuijpers & Cristea, 2016). Efficacy studies thus have high internal validity, and experimental control is emphasized. Confounding variables and third factors are ruled out as far as possible according to best research practice (Shadish et al., 2002). But because of this, efficacy studies are also criticized for lacking external validity as the ideal conditions might differ from real-world application (Kazdin, 2008; Möller, 2011). Targeting different diagnoses and protocols thus may limit the integration of research into clinical practice (Kazdin, 2008).

The opposite of efficacy studies are “effectiveness studies,” which are carried out in a naturalistic setting in clinical practice (Möller, 2011). In these naturalistic research studies, both clinicians and patients are more heterogeneous. Patients in the “real world” often have comorbid problems with several diagnoses, may have more severe problems, undergo several treatments at once, and haven’t actively enrolled for a specific treatment method based on a research study. Moreover, the “real-world” clinicians may not follow a standardized treatment protocol or be specifically trained for a certain treatment method. There is evidence that when researchers have a strong loyalty to a particular treatment method, it affects the outcomes in favor of that treatment

(Cuijpers & Cristea, 2016). Thus, therapists' commitment to a particular treatment method in intervention trials matters.

Moreover, many health care interventions are so-called complex interventions in that they include multiple interacting components that need to be considered when evaluating their effectiveness (Campbell et al., 2000; Craig et al., 2008). The success of a complex intervention is not dependent on a single component but on the synergy and interaction between components such as patient characteristics (for example, age, cultural background, severity of the condition, and comorbidities), contextual factors (such as the type of health care facility, organizational culture, treatment guidelines and policies), provider factors (such as experience and training of the professional delivering the intervention), and economic factors (such as available resources or technological advances). Policies, health care regulations, and management decisions can sometimes make it hard to use gold standard methods for research, such as randomized controlled studies; health care personnel may not have the time or desire to follow an extensive research protocol; and it may be hard to integrate new methods into existing practices. Carrying out research studies in clinical practice is administratively difficult and costly, and it is not uncommon for clinical trials to be based on a small sample size. Key questions to consider when evaluating complex interventions are how local conditions contribute to the outcome and how the effectiveness of the intervention may vary between sites and receivers. Another key question to consider is *how* the intervention works and what are the active ingredients enabling a successful outcome (Craig et al., 2008). Because of the multifaceted nature of complex interventions, a framework developed by the British Medical Research Council (MRC) has been advanced for evaluating such interventions (Campbell et al., 2000; Craig et al., 2008). This framework emphasizes a theory of active ingredients when developing interventions; pilot studies to identify the feasibility and acceptability of the intervention to the target group and health unit that it is intended for; and a selection of outcome measures that, apart from symptoms or behavioral changes, also include wider aspects of relevance to the health system, such as economic measures. The framework also gives recommendations on high-quality alternatives to randomized controlled trials when such a Study Is not feasible, and emphasizes the use of mixed methods, combining quantitative and qualitative data to get a rich understanding of how varied factors interact, and of factors that can hinder and facilitate implementation (Campbell et al., 2000; Craig et al., 2008).

The participants in Study I and Study II were recruited in routine primary care, and thus constituted a clinical group. Background variables and diagnoses in the participant samples were largely representative of the patient profile in primary care, presenting with a range of clinical and socioeconomic

backgrounds. For example, in Study II, the most common psychiatric diagnosis was the unspecified anxiety disorder, representing 48% of the sample. Generalized anxiety disorder, panic disorder, and health anxiety were also common in the sample and mirror the general primary care setting well. Almost two thirds of the participants had previous experiences of psychological treatment, and 37% had simultaneous psychopharmacological treatment when starting the ICBT treatment. However, conducting the studies within routine clinical care also posed a challenge in recruiting enough participants. Additionally, because of the “messiness” in the real routine clinical care, it is difficult to control for possible confounding variables that might have interacted with the results. The studies for this doctoral thesis made use of several of the recommendations put forward within the British Medical Research Council framework for complex interventions (Campbell et al., 2000; Craig et al., 2008), including the use of mixed methods and explorative studies to assess the feasibility and acceptability of the interventions. However, this also calls for future studies evaluating the initial and preliminary findings from the research studies included in this doctoral thesis; these would be randomized controlled studies with larger sample sizes, adopting the use of methods to assess mechanisms of change and process variables to investigate *how* and *for whom* the interventions may work.

Research designs of the included studies

The design of a research Study Is important for the validity of the conclusions that are drawn from the results (Shadish et al., 2002). Validity refers to the extent to which a conclusion can be considered true. Generally, four types of validity have been put forward: 1) *Internal validity* refers to whether a relationship between a treatment and an outcome can accurately be considered causal; 2) *External validity* refers to whether the local causal relationship holds when generalized to other persons, treatments, observations, and settings (UTOS); 3) *Statistical conclusion validity* refers to the accuracy of the inferences about the size and effect between the treatment and outcome; and 4) *Construct validity* refers to whether the research design (or measurement instrument) accurately captures the intended construct of interest varied over persons, treatments, observations, and settings (Shadish et al., 2002). Validity refers to the inferences we draw and not to the research design itself, although the latter is often the way it is referred to in casual conversation. However, different designs strengthen or weaken different types of validity (Shadish et al., 2002). Thus, below is a discussion of the different research designs of the included studies for this doctoral thesis.

Study I was a mixed methods intervention study using both quantitative and qualitative methods. The study used a convergent design, giving equal

importance to the quantitative and qualitative parts of the study to provide a richer understanding of the research questions (Creswell & Plano Clark, 2018). Traditionally, quantitative methods have been seen as the main approach for illustrating causal relationships, with the experiment put forward as the ideal approach (Maxwell & Levitt, 2023). However, the experiment only gives a *causal description*, that is, describing the outcome of isolating and manipulating a certain intervention, but it does not necessarily offer a causal *explanation*, namely, the treatment mechanisms involved in producing the outcome, and the specific circumstances under which that causal relationship works (Shadish et al., 2002). A causal explanation can help examine processes and mechanisms of change in therapy, offering guidance in clinical practice by helping clinicians tailor treatment to the specific needs of the patient in front of them. Therefore, some researchers have recently begun to challenge the traditional view that only quantitative methods are suitable for investigating causality (Maxwell & Levitt, 2023). Qualitative methods focus on in-depth understanding of people's meaning making and have a detailed focus on contextual influences. Because beliefs and reasons largely influence people's behaviors, qualitative methods can be argued to be well suited to understanding causality, especially in psychotherapy research (Maxwell & Levitt, 2023). Study I used both methods, and the qualitative findings combined with quantitative measures, including statistical analysis and clinical measures, supported greater emphasis on each.

However, there are also limitations to Study I. First, it includes only nine participants and has no control group to account for confounding variables, which are major concerns from a quantitative standpoint. The usefulness of quantitative analyses in providing meaningful information can be debated when applied to such a small sample group, and the *external validity* of the results is not valid, that is, the findings may be highly colored by the circumstances of the individuals taking part in the intervention and is not generalizable to other persons and settings (Shadish et al., 2002). Additionally, because of the within-group design, we cannot know whether the participants would have seen similar progress in the outcome variables without treatment, or in an internet-based treatment with support from traditional health care personnel only. The qualitative data are based on the experiences of eight participants, and there are questions as to whether the results could be considered saturated. Saturation is defined as when the description of a phenomenon seems to be fully explored and further qualitative data would not contribute novel information to the analysis (Morse, 2015). Since the qualitative analysis in this study was based on the enrolled participants for the treatment evaluation, we do not know if additional insights would have been provided had the Study Included more participants. The themes and results from the qualitative data in

this study cannot assert transferability to other settings but may be seen as providing valuable insights for shaping future developments of peer-supported interventions integrated into internet-based treatments.

Study II was a randomized controlled trial (RCT) with two arms, including an intervention group and an active control group. The RCT design is the strongest experimental design to prove causation (Shadish et al., 2002) and is a strength of the study. The randomization is considered to result in groups balanced on both observed and unobserved characteristics of relevance for the outcome. If the randomization trial is carried out correctly, confounding factors and third variables are considered to be accounted for, and any difference in outcome between the experimental and control group can be attributed to the treatment intervention and not to pre-existing differences between the groups. The trial is then considered internally valid, that is, the outcomes from the trial are the result of the experimental intervention, and alternative explanations can be ruled out (Shadish et al., 2002). The control condition in Study II was an active control group based on treatment-as-usual (TAU) at the ICBT clinic. The outcome of the experimental condition is always relational to the outcome of the control condition, and the selection of type of control condition thus has consequences for the interpretation (Mohr et al., 2009). Having control groups based on treatment-as-usual means that the control group participants receive the ordinary intervention used in the setting where participants are recruited. Some common problems with TAU controls are that it may be unclear what TAU is since this may vary based on the working method of the unit or the clinician carrying out the intervention. In the development and delivery of the experimental condition there is often rigorous training and supervision of study therapists and fidelity monitoring of the delivery of the intervention, while in a TAU condition there is typically no specific training, supervision, or monitoring of therapists. This may create bias in that the therapists in the intervention and TAU arm might differ in expertise, fidelity, beliefs, and enthusiasm regarding the intervention they deliver. These are all factors that might affect the outcomes of those specific treatments, resulting in bias and threats to the internal validity of the study (Mohr et al., 2009). Since the ICBT program used in the TAU condition in Study II is largely built on self-help, many of the problems with TAU control conditions could be avoided, and the standard ICBT arm was highly standardized, and easily followed and described. Yet another strength of Study II was that, apart from assessments being carried out before, during, and after treatment, the outcome assessments also included a 3-month follow-up, and thus long-term effects were evaluated.

However, there are also some considerations regarding Study II that deserve mentioning. Although the study made use of the gold standard method of RCT, threats to internal validity can arise depending on how the RCT is carried out

(Mohr et al., 2009). One threat that applies to Study II is that it was not possible to blind the participants to the treatment conditions. Since the participants randomized to the patient-driven condition were asked to make choices before starting treatment, participants knew whether they received the patient-driven or standard ICBT format. This may have introduced potential bias into the results, such as expectancy effects, in that patients in the intervention group had been informed that they were receiving “personalized” treatment as opposed to standardized care. However, the study was conducted in routine clinical care and, because of this, expectancy effects might have had less influence than they would have had if the participants had sought a study specifically based on their desire for a patient-driven treatment. Moreover, the study had a relatively small sample size, which might have affected the possibility of detecting significant effects (Kazdin, 2023). Yet another aspect of small sample sizes is that they also entail the possibility of overestimating the effect of the treatment, since, although participants are randomized, the likelihood of systematic differences between the treatment conditions increases (Cuijpers & Cristea, 2016).

Study III was also a randomized controlled trial with two arms, which, as discussed above, is a strength in terms of being able to make causal inferences (Shadish et al., 2002). A limitation with the design in Study III, however, is that the control group was non-active, consisting of a wait-list control group (WLC), which entails some problems, as discussed elsewhere in this thesis (Cuijpers & Cristea, 2016; Mohr et al., 2009). For example, studies using wait-list control groups produce significantly larger between-group effects compared to studies using care-as-usual and other control groups (Cuijpers, Reijnders, et al., 2019). Thus, in future research it would be preferable to test the intervention against an active control group. In such an evaluation, smaller effect sizes between the treatment conditions would be expected, hence it would require a considerably larger sample size (Cuijpers & Cristea, 2016). This was not possible in the current study due to limitations in resources, and it could be argued that when evaluating a new treatment method, it is reasonable to evaluate the treatment against non-active controls before performing more costly study designs. Moreover, as opposed to Study I and Study II, Study III was an efficacy Study Including participants recruited with advertisements. This may have affected the representativeness of the study participants and limited the ecological validity of the study, that is, the conclusion that can be drawn from this Study In relation to clinical practice. For example, participants actively applying to a research Study Investigating an internet-delivered treatment may result in *selection bias*, meaning that they may be more willing and motivated to use such a treatment format, potentially resulting in a more favorable outcome than if the intervention had been tested on patients recruited in

routine clinical care. The study participants could be argued to constitute a clinical group in terms of severity of anxiety and number of diagnostic criteria they met before treatment. Many had also received previous psychological treatment, strengthening the notion that these adolescents could have been found within a regular health care context. However, a minority of the participants ($n=7$) had subclinical anxiety based on the diagnostic interview, but since they were seeking help and did not differ in the severity of their scorings on the main measurement scale for anxiety (SCAS-S), a decision was made to include them in the study.

Additional limitations regarding the design of Study III were that the treatment outcomes were evaluated only post-treatment with no further follow-up, although follow-up would have been preferable. However, from an ethical perspective this also meant that the wait-list control group received treatment within a more reasonable time frame than they would have if they had to continue waiting during a follow-up period. Challenges to digital mental health research include evaluating treatments against active control conditions, in routine clinical care, and identifying and resolving potential barriers in the implementation of these interventions in the real world, such as education and training for clinicians and ensuring that the interventions are appealing and accessible to patients (Katharine et al., 2023). These challenges could therefore be considered in future research studies when evaluating internet-delivered ACT treatments for adolescents.

Study IV was a psychometric study using confirmatory factor analysis (CFA) for examining the structural validity and dimensionality of a measurement scale aimed at assessing empowerment in patients with mental health problems. We compared the scale's structural properties in a primary care and a psychiatric care sample. Participants for the two samples comprised patients recruited from Swedish primary care and psychiatric care. Considering that measurement instruments ideally need to be tested in the context where they are supposed to be used, it was a strength that the participants had been recruited within routine health care. However, participants for the two samples were assembled from different subsamples of participants recruited for different studies during different time periods, and it is always dubious to conclude that they represent a primary care or a psychiatric population. The two populations also differed in aspects such as time of recruitment and gender distribution. For example, all participants for the primary care sample had been enrolled for the studies within the past 5 years, while participants for the psychiatric sample had been recruited between 2007 and 2014. The primary care sample had a large bias towards women, and all participants, except for subsample 3 ($n=35$), had been recruited for research studies on internet-delivered treatment programs. Because of the emphasis on self-help, it could be hypothesized

that patients enlisted for internet-delivered treatments may present with higher self-efficacy, which could contribute to higher empowerment scores compared to patients seeking other forms of treatment. Since the feeling of empowerment may be strongly influenced by contextual factors, including time and societal norms, power imbalances, gender aspects, and so forth, the above-mentioned factors may all have influenced the participants' views of empowerment. Finally, the primary care and psychiatric sample were relatively small, and it would have been preferable to have more participants when performing the factor analyses. For example, it was methodologically not possible to test some of the factor solutions proposed in previous research in our psychiatric sample, probably due to a limited sample size relative to the complexity of these models.

Data analysis

Statistical power. Intervention studies make use of the null hypothesis significance test to determine if there is any difference between groups over time (for between-groups designs) or between measurement points (for within-group designs) as a result of treatment (Lakens, 2013), together with effect sizes to determine the size of the effect (Lakens, 2013). The reporting of effect sizes is significant for several reasons, including being a standardized metric that can be compared across studies regardless of the specific scale that is used within the individual study. Effect sizes tell about the practical significance of the result, the magnitude of the effect, instead of only determining the likelihood of the result in a study, given that there is no actual effect in the population. Effect sizes are also useful when planning new studies, as they are used in a priori power analyses to determine the sample size needed to be able to detect a statistically significant result with a certain desired likelihood (Lakens, 2013).

Statistical power refers to the probability of correctly rejecting the null hypothesis in a significance test, that is, the probability of detecting a true effect if there is one (Cohen, 1988). Statistical power is low when the sample size is small or when the effects are small, or both (Button et al., 2013). Low statistical power for a study means that the chance of finding genuine true effects is low, and such studies produce more false negatives (Button et al., 2013). Another problem with low power refers to the effect sizes. If an under-powered study discovers a true effect, it is likely that the estimation of the magnitude of the effect is exaggerated (Button et al., 2013). Lack of statistical power thus threatens the *statistical conclusion validity*, that is, the researcher risks making invalid inferences about the existence and size of the relationship between two variables (Shadish et al., 2002).

Another problem with low-power studies is that they are more sensitive to other biases that may occur in research, such as publication bias, selective reporting of outcome measures, and vibration effects. Vibration effects mean that the results may easily change and vary depending on analytical choices, such as the use of a particular statistical method and choices related to this (Button et al., 2013). Small sample sizes might also bias the results in intervention trials in the opposite direction, in more easily producing systematic differences between the treatment conditions. Cuijpers and Cristea (2016) give the example of tossing a coin; if you toss it 10 times, the chances of heads turning up more often than tails is quite likely, but if you toss the coin 100 times, the likelihood of equal display of both sides is much greater. A small sample size might also diminish the *external validity*: the generalizability of the results to other persons, settings, treatments, and measurement variables (UTOS; Shadish et al., 2002). The conclusions drawn are more likely to be colored by individual variations and specific characteristics that exist among the participants, while these influencing factors become less important the more people participate in the intervention (Shadish et al., 2002).

As discussed elsewhere, because both Study I and Study II were conducted within routine clinical care, it was hard to recruit enough participants. This was because of organizational and regulatory challenges in conducting intervention trials within clinical practice. In Study I, employing peer supporters within primary care proved difficult. The aim of Study I was not to assess the efficacy of the treatment but rather its feasibility and practicality, thus making statistical power of less significance. Study II, however, was underpowered based on the a priori power analysis conducted before initiating the study. An a priori power analysis provides an estimate of the sample size needed to be able to observe a significant effect (Lakens, 2013). Thus, it is possible that additionally significant effects would have been seen had the recruitment period continued and the Study Included more participants. Furthermore, due to the study being underpowered, there is increased uncertainty about the effect sizes and a risk that these are inflated (Button et al., 2013).

Study III was not conducted within clinical practice but included participants recruited by advertisement. A power analysis showed that it was necessary to include 50 participants in order to find a middle-sized effect. The study results are based on 52 participants, meaning that the study was accurately powered.

Missing data. The researchers' choices in how to handle study dropouts is another factor that affects the data analysis. Participants that drop out from a study are often the ones for whom the intervention is not helpful or, in the worst case, participants that are experiencing harmful effects of the treatment. Thus,

if only analyzing data from participants that have completed the intervention, the significance and effect size of the intervention will be biased (Cuijpers & Cristea, 2016). Because of this, it is recommended that the intention to treat (ITT) principle be used, where all participants that were included in the trial are analyzed, whether they finished the treatment or not. However, the participants who drop out of the study will have missing data points for one or several measurements, which needs to be considered when statistically analyzing the data. Several methods for handling missing data have been proposed, such as last observation carried forward (LOCF), multiple imputation, or mixed models for repeated measurements (Cuijpers & Cristea, 2016). All the intervention studies included for this doctoral thesis made use of the intention-to-treat approach. In Study II and Study III, mixed models for repeated measures, or multilevel modelling, were used, which has generally been proposed as an advantageous method for handling missing data. This method makes use of all the data, including from participants with missing data at one or several data points (Singer & Willett, 2003). Study IV was not an intervention study, thus in this study only participants with complete data were analyzed to avoid data imputation bias. Study I made use of LOCF to handle missing data points. This seemed suitable in the context of the small sample size in this study, which made more advanced statistical methods incompatible. However, it should be mentioned that recent research cautions against using this method. LOCF has traditionally been a pervasive method and proposed as a conservative method for handling missing data, which would rather underestimate the effect (Lachin, 2016). However, LOCF can introduce both positive and negative biases that can both overestimate and underestimate the effect, and voices have been raised against using the method at all (Lachin, 2016). Nevertheless, a strength of Study I is the combination of several different methods for analysis, where the quantitative results formed one part of the results, coupled with both clinical measures and qualitative insights.

Self-reports. In all the studies included in this doctoral thesis, the outcome measures used were self-report forms, and we do not know if the participants' answers correspond to notable and actual behavioral changes. Problems with self-report measures as subjected to different response biases have been discussed (Bogner & Landrock, 2016). For example, participants included in the experimental group may answer more favorably because of *social desirability*: the tendency to answer in accordance with what they think the researchers expect of them. When participants are asked to answer several self-reports, question order or halo effects may appear, meaning that participants answer subsequent questions based on their answers on previous effects (Bogner & Landrock, 2016). Another problem refers to *measurement reactivity*, namely,

that people may start to behave differently or feel better simply because they know they are being measured.

Correlation studies. In both Study II and Study III, we explored potential effective elements in treatment through correlation analyses between empowerment, alliance, psychological flexibility, and outcomes. The study of mechanisms of change, however, is best done by mediation models (Cuijpers, Reijnders, & Huibers, 2019). A mediator is the underlying/third variable that explains the association between the treatment intervention and the outcome. Several statistical assumptions must be met to perform mediation models. However, providing statistical proof that a mediation exists is not enough to prove that a variable is in fact a mechanism of change. Studies also need to prove temporal associations – indicating that the change in the mediator precedes the change in the outcome – a dose-response relationship between the mediator and the outcome, experimental manipulation of the hypothesized mediator, and the provision of a theoretical rationale explaining how and why the mediator contributes to the observed change (Cuijpers, Reijnders, & Huibers, 2019). In addition, there is always a possibility that the mediator works as a proxy for one or several underlying third variables that cause the change in both the outcome and the mediator. To date, most of the research on working mechanisms and process variables in ACT is correlational in nature, and few studies exist based on the extensive criteria by Cuijpers, Reijnders, & Huibers (2019). Likewise, as discussed, in both Study II and Study III, correlation analyses were used to investigate associations between changes in variables hypothesized to be of relevance for positive treatment change and changes in the outcomes. Study II, however, was designed to assess empowerment as a potential mediator in the treatment process. For example, the study considered the timing of changes in empowerment in relation to changes in treatment outcomes. Empowerment was measured at multiple points during the treatment, including a mid-treatment assessment. However, the primary outcome analysis did not reveal any significant interaction between time and treatment group for empowerment. Therefore the mid-treatment assessment suffered from a significant number of missing data points (almost 50%), and the poor quality made it hard to use this assessment point in a mediation analysis. As a result, investigating empowerment as a mediator for treatment outcomes in the patient-driven condition did not seem relevant. However, for explorative reasons we conducted a mediational analysis, using the post-treatment score of empowerment as the mediator while controlling for the pretreatment scores of empowerment in order to obtain a “change score” of empowerment during treatment. The result from the mediation analysis can be found in Appendix I. Study III, on the other hand, was not designed to assess mediation and included only a

pre- and post-measurement assessment point. Thus, the results from Study II and Study III show correlation between the hypothesized variables and treatment outcome but cannot prove causation. The findings can be used as a foundation for theories about process variables in acceptance-based ICBT treatments, but future research needs to formally study the mediational nature of these variables.

Ethical considerations

The studies included for this doctoral thesis were approved by the Swedish Ethics Review Authority (Dnr: 845-18; Dnr: 2019-03786; Dnr: 2019-05-784; Dnr 2020-03581).

Conducting research on humans always involves ethical considerations. In the context of clinical research, researchers should carefully consider the ethical implications of involving mentally fragile patients in additional study-related tasks. The process of completing assessment forms before, during, and after treatment can be time-consuming for patients and may evoke emotional responses. Nonetheless, it remains crucial to ensure that health care treatments are grounded in evidence-based practices and are subject to evaluation through research. In practice, clinical research therefore involves a delicate balance between minimizing inconvenience for individual patients and advancing treatment methods to better assist future patients.

For all studies discussed in this thesis, informed consent was obtained from all participants. The participants were informed about the study and possible risks prior to treatment start, that they could withdraw from the study at any time and that this would not affect their current or future treatment. They were informed that all their personal information and responses to assessment forms would be handled confidentially and would be reported anonymously at group level. They further received information about whom they could contact about questions or remarks about the study. The participants in Study I and Study II all had support from their mental health professional, whom they could turn to should completing assessment forms or otherwise participating in the study evoke negative feelings. Likewise, in Study III, half of the study participants had support from their mental health professional throughout the treatment intervention. The participants in the control group could contact the responsible researchers if their mental health began to deteriorate, and they would be referred to regular care.

Internet-based interventions have been proposed as a way to reduce health disparities and disparities in access to health care that exist between different socioeconomic, ethnic, and linguistic groups (Ralston et al., 2019). All treatment programs used in the research studies were given in Swedish and

consequently had an inclusion criterion of being able to speak and understand Swedish adequately. This inevitably excludes patients from different language groups who do not speak or understand Swedish well enough. This exclusion raises ethical questions about fairness and accessibility in Internet-based treatment programs. It is important to reflect on how this limitation can affect different social groups and whether it can contribute to reproducing existing health differences. To promote ethical responsibility in research and health care, it is necessary to consider alternative methods in order to include and provide care to non-Swedish-speaking populations. This may involve translating treatment programs into different languages and designing culturally appropriate intervention strategies to ensure that internet-based treatment programs are accessible and effective for a wider and more diverse patient population. Efforts to accomplish a more inclusive and fair care environment regarding internet-based treatment programs may usefully be considered in future research.

Contribution and directions for future research

Primary care is part of the first line psychiatry in Sweden and meets a large proportion of patients with mental health problems. In addition, recent policy documents direct more responsibilities for mental health problems to primary care. In the light of this there is a need to investigate how evidence-based psychological treatments can best be delivered in the clinical setting as well as how treatment methods can be made more efficient to help more people. Internet-delivered treatment programs may increase access to evidence-based care by reducing some of the barriers that exist in today's primary care, such as limited trained psychologists and psychotherapists, vast geographical distances to a primary health care centers for some patients, inflexibility regarding when to visit health care clinics, and potential stigmas patients may feel when sharing mental health problems. The studies included in this thesis investigate internet-delivered CBT with different amounts of influence from acceptance and commitment therapy (ACT), delivered in the clinical setting of Swedish primary health care.

In Sweden, primary care is responsible for identifying and providing first-line care for mental illness (SOU 2021:6). The mission of primary care is to meet people's health needs throughout life using evidence-based practices to identify and address important social, economic, environmental, and individual factors for health as well as to empower patients to exert influence over and optimize their own health (WHO and UNICEF, 2018). Policies state that primary health care should be based on person-centered care, and they underline the importance of patients being active agents in their own care (National

Board of Health and Welfare (Socialstyrelsen), 2020; SOU 2018:39; WHO and UNICEF, 2018). Considering patients' individual and contextual factors as well as their experiences, wishes, and preferences for treatment is thereto significant in evidence-based practice (American Psychiatric Association, 2006). Taking part in psychological treatments generally requires greater active involvement from patients compared to other evidence-based treatments, such as psychopharmacological treatments. The treatment work requires time and commitment, and the therapy often involves emotional strain. Because of the nature of digital treatment programs, which to a large extent involve self-help and less contact with a therapist than traditional face-to-face treatments, these aspects might be even more pronounced in digital treatments, where more responsibility is placed on the patient. For primary health care to deliver ICBT successfully, it may therefore be important to personalize and tailor the treatment and foster patient influence.

The thesis contributes to the field of internet-delivered mental health interventions by exploring how the patient's role and influence in the treatments can be enhanced, with a specific focus on addressing anxiety disorders. Through the exploration of distinct dimensions within this realm, each article offers unique perspectives that collectively enrich our understanding of effective treatment strategies, feasibility considerations, and avenues for improvement. By examining the integration of acceptance and commitment therapy, patient-driven and self-tailored treatments, and patients' experiential knowledge and experiences, and by focusing on ways to enhance the patient's sense of control, empowerment, preferences, values, and individual resources in treatment, the thesis contributes to a more comprehensive knowledge base surrounding internet-based interventions.

Within the aim of this doctoral thesis, the following research question was posed: *How can patient influence be conceptualized and integrated into acceptance-based internet-delivered CBT for anxiety disorders in primary health care?*

The compiled results from this doctoral thesis suggest that treatment components based on acceptance and commitment therapy, such as strengthening and eliciting the patients' personal values in life and helping them live more in accordance with those, may be a fruitful treatment for patients with anxiety disorders and fit well with the practice of person-centered care and the overall mission of primary care to empower patients to exert influence over their own health (WHO and UNICEF, 2018). Patient-driven and self-tailored parts of the treatment seem like feasible ways of personalizing the treatment and are initially promising in terms of strengthening patients' sense of control over their treatment. Incorporating patients' experiential knowledge and experiences in treatment through the additional guidance of PSWs seems practicable and

acceptable to patients and could be investigated as an intervention in future randomized controlled trials, with the hypothesis that guidance based on shared experiences and a recovery-oriented focus on patients' strengths and resources may contribute to a sense of personal connection, patient agency, and hope. Finally, in the light of the definition of primary care, which focuses on empowering individuals treated by professionals, it is important to find ways to have patients feel that they have control and influence in their contact with primary care. Internet-based therapies inherently promote patients as active agents of their own care and may strengthen the feeling of empowerment. Additional ways to personalize treatment may yet be warranted to improve the effectiveness of those treatments and foster patient control and agency even more. However, additional research is needed to fully conceptualize what empowerment means in a primary care and digital treatment setting and how this can best be measured.

Directions for future research

This doctoral dissertation explores and highlights patient influence in internet-delivered acceptance- and commitment-based treatments. The dissertation underscores the importance of promoting a sense of control in treatment, connectedness, and patients' values within their health care experiences. In terms of future directions, given the explorative nature of the doctoral thesis, there is a compelling need for further research to delve into treatment considerations across larger sample sizes and more diverse patient populations, employing rigorous experimental designs. Since these are the first steps of exploring patient influence in internet-delivered acceptance- and commitment-based treatments, several avenues for future studies emerge:

- **Expanded Treatment Modalities:** Investigate acceptance-based treatments, peer support, and patient-driven internet-delivered treatments in randomized controlled studies, incorporating larger sample sizes and active control groups, spanning various health care contexts.
- **Long-Term Effects:** Explore the long-term effects of these treatments to gain a comprehensive understanding of their sustained impact on patients.
- **Informed Patient Choice:** Elaborate on patient choice before and during treatment by providing comprehensive information on various treatment options. Enhance patients' health literacy to facilitate informed decision making.

- **Determinants of Patient-Driven Treatments:** Investigate the relative importance of different choices in patient-driven treatments through methodologies such as component analyses.
- **Mediational Studies:** Conduct mediational studies focusing on empowerment, alliance, and psychological flexibility as crucial process variables in acceptance-based internet-delivered cognitive-behavioral therapy (ICBT). Understanding these factors can guide clinicians in promoting specific aspects of treatment to facilitate patient change and improve adherence.
- **Working Alliances in Internet-Delivered Treatments:** Investigate practices or therapist behaviors that contribute to the development of strong working alliances in internet-delivered treatments. Explore the role of alliance in internet treatments when integrated into routine care.

These research questions collectively aim to, in the future, further inform therapists working with internet-delivered treatments in routine clinical practice, offering insights into optimizing treatment strategies, enhancing patient outcomes, and ensuring effective integration into health care contexts.

Conclusions

The research studies included in this doctoral thesis collectively contribute to the field of internet-delivered mental health interventions by exploring how patient influence can be integrated into the treatment. The included studies each explore distinct dimensions on how to incorporate the patient's individual preferences, experiences, resources, and values, and they offer unique perspectives that collectively enrich our understanding of effective treatment strategies, feasibility considerations, and avenues for improvement. By incorporating acceptance and commitment-based treatments, patient-driven approaches, and patients' experiential knowledge and experiences, the thesis underscores the potential for enhancing treatment outcomes and psychological flexibility, fostering agency, sense of control, and connectedness, and promoting patients' own values in their health care. In sum, the included research studies together serve as a foundation for future research and development, paving the way for innovative and tailored approaches in the realm of digital mental health interventions.

Disclosure

The author declares no known competing financial interests or personal relationships that could have appeared to influence the work reported in this doctoral thesis.

The world is facing many challenges linked to climate change and overexploitation of natural resources. The carbon impact of internet-based cognitive behavioral therapy (CBT) can vary. While it reduces the need for physical travel, potentially lowering carbon emissions, it still requires energy for servers, data centers, and device usage. Assessing its precise impact involves considering data storage, server energy consumption, and individual device usage, which can be complex. ESG (Environmental, Social, and Governance) criteria focus on assessing a company's impact on the environment, society, and its corporate governance. As for the push for sustainability and ESG reporting in 2024, regulations focusing on carbon footprint disclosures might prompt researchers in projects to scrutinize and mitigate the environmental impact of their digital services, including internet-based therapies.

References

- Acuña Mora, M., Sparud-Lundin, C., Moons, P., & Bratt, E. L. (2022). Definitions, instruments and correlates of patient empowerment: A descriptive review. *Patient Education and Counseling, 105*(2), 346–355. <https://doi.org/10.1016/j.pec.2021.06.014>
- Ahlen, J., Vigerland, S., & Ghaderi, A. (2018). Development of the Spence Children's Anxiety Scale – Short version (SCAS-S). *Journal of Psychopathology and Behavioral Assessment, 40*(2), 288–304. <https://doi.org/10.1007/s10862-017-9637-3>
- Alfonsson, S., Olsson, E., & Hursti, T. (2016). Motivation and treatment credibility predicts dropout, treatment adherence, and clinical outcomes in an internet-based cognitive behavioral relaxation program: A randomized controlled trial. *Journal of Medical Internet Research, 18*(3), e52. <https://doi.org/10.2196/jmir.5352>
- American Psychiatric Association. (2006). Evidence-based practice in psychology. *American Psychologist, 61*(4), 271–285. <https://doi.org/10.1037/0003-066X.61.4.271>
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596>
- Andersson, G. (2018). Internet interventions: Past, present and future. *Internet Interventions, 12*, 181–188. <https://doi.org/10.1016/j.invent.2018.03.008>
- Andersson, G., Carlbring, P., & Rozental, A. (2019). Response and remission rates in internet-based cognitive behavior therapy: An individual patient data meta-analysis. *Frontiers in Psychiatry, 10*, 749. <https://doi.org/10.3389/fpsyt.2019.00749>
- Andersson, G., Estling, F., Jakobsson, E., Cuijpers, P., & Carlbring, P. (2011). Can the patient decide which modules to endorse? An open trial of tailored internet treatment of anxiety disorders. *Cognitive Behaviour Therapy, 40*(1), 57–64. <https://doi.org/10.1080/16506073.2010.529457>
- Andersson, G., Käll, A., Juhlin, S., Wahlström, C., de Fine Licht, E., Färdeman, S., Franck, A., Tholcke, A., Nachtweij, K., Fransson, E., Vernmark, K., Ludvigsson, M., & Berg, M. (2023). Free choice of treatment content, support on demand and supervision in internet-delivered CBT for adults with depression: A randomized factorial design trial. *Behaviour Research and Therapy, 162*, 104265. <https://doi.org/10.1016/j.brat.2023.104265>
- Andersson, G., Paxling, B., Wiwe, M., Vernmark, K., Felix, C. B., Lundborg, L., Furmark, T., Cuijpers, P., & Carlbring, P. (2012). Therapeutic alliance in guided internet-delivered cognitive behavioural treatment of depression, generalized anxiety disorder and social anxiety disorder. *Behaviour Research and Therapy, 50*(9), 544–550. <https://doi.org/10.1016/j.brat.2012.05.003>
- Andersson, G., Rozental, A., Shafraan, R., & Carlbring, P. (2018). Long-term effects of internet-supported cognitive behaviour therapy. *Expert Review of Neurotherapies, 18*(1), 21–28. <https://doi.org/10.1080/14737175.2018.1400381>

REFERENCES

- Andersson, G., & Titov, N. (2014). Advantages and limitations of internet-based interventions for common mental disorders. *World Psychiatry, 13*(1), 4–11. <https://doi.org/10.1002/wps.20083>
- Andersson, G., Titov, N., Dear, B. F., Rozental, A., & Carlbring, P. (2019). Internet-delivered psychological treatments: From innovation to implementation. *World Psychiatry, 18*(1), 20–28. <https://doi.org/10.1002/wps.20610>
- Andrews, G., Basu, A., Cuijpers, P., Craske, M. G., McEvoy, P., English, C. L., & Newby, J. M. (2018). Computer therapy for the anxiety and depression disorders is effective, acceptable and practical health care: An updated meta-analysis. *Journal of Anxiety Disorders, 55*, 70–78. <https://doi.org/10.1016/j.janxdis.2018.01.001>
- Ansseau, M., Dierick, M., Buntinx, F., Cnockaert, P., De Smedt, J., Van Den Haute, M., & Vander Mijnsbrugge, D. (2004). High prevalence of mental disorders in primary care. *Journal of Affective Disorders, 78*(1), 49–55. [https://doi.org/10.1016/s0165-0327\(02\)00219-7](https://doi.org/10.1016/s0165-0327(02)00219-7)
- Bailey, A., Ciarrochi, J., & Hayes, L. (2012). *Get out of your mind and into your life for teens: A guide to living an extraordinary life*. New Harbinger Publications.
- Bandura, A. (1977). *Social learning theory*. Prentice-Hall.
- Barkham, M., Bewick, B., Mullin, T., Gilbody, S., Connell, J., Cahill, J., Mellor-Clark, J., Richards, D., Unsworth, G., & Evans, C. (2013). The CORE-10: A short measure of psychological distress for routine use in the psychological therapies. *Counselling and Psychotherapy Research, 13*(1), 3–13. <https://doi.org/10.1080/14733145.2012.729069>
- Barr, P. J., Scholl, I., Bravo, P., Faber, M. J., Elwyn, G., & McAllister, M. (2015). Assessment of patient empowerment – A systematic review of measures. *PLoS One, 10*(5), e0126553. <https://doi.org/10.1371/journal.pone.0126553>
- Baumeister, H., Reichler, L., Munzinger, M., & Lin, J. (2014). The impact of guidance on Internet-based mental health interventions – A systematic review. *Internet Interventions, 1*(4), 205–215. <https://doi.org/10.1016/j.invent.2014.08.003>
- Beesdo, K., Knappe, S., & Pine, D. S. (2009). Anxiety and anxiety disorders in children and adolescents: Developmental issues and implications for DSM-V. *Psychiatric Clinics of North America, 32*(3), 483–524. <https://doi.org/10.1016/j.psc.2009.06.002>
- Berger, T. (2017). The therapeutic alliance in internet interventions: A narrative review and suggestions for future research. *Psychotherapy Research, 27*(5), 511–524. <https://doi.org/10.1080/10503307.2015.1119908>
- Berger, T., Boettcher, J., & Caspar, F. (2014). Internet-based guided self-help for several anxiety disorders: A randomized controlled trial comparing a tailored with a standardized disorder-specific approach. *Psychotherapy, 51*(2), 207–219. <https://doi.org/10.1037/a0032527>
- Boevink, W. (2017). *Planting a tree: On recovery, empowerment and experiential expertise*. Trimbos-instituut
- Bogner, K., & Landrock, U. (2016). Response biases in standardised surveys. *GESIS survey guidelines*.

REFERENCES

- Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy: Theory, Research & Practice*, *16*(3), 252–260. <https://doi.org/10.1037/h0085885>
- Borsboom, D. (2017). A network theory of mental disorders. *World Psychiatry*, *16*(1), 5–13. <https://doi.org/10.1002/wps.20375>
- Bower, P., & Gilbody, S. (2005). Stepped care in psychological therapies: Access, effectiveness and efficiency – Narrative literature review. *British Journal of Psychiatry*, *186*(1), 11–17. <https://doi.org/10.1192/bjp.186.1.11>
- Bower, P., Kontopantelis, E., Sutton, A., Kendrick, T., Richards, D. A., Gilbody, S., Knowles, S., Cuijpers, P., Andersson, G., Christensen, H., Meyer, B., Huijbers, M., Smit, F., van Straten, A., Warmerdam, L., Barkham, M., Bilich, L., Lovell, K., & Liu, E. T. (2013). Influence of initial severity of depression on effectiveness of low intensity interventions: Meta-analysis of individual patient data. *BMJ*, *346*, f540. <https://doi.org/10.1136/bmj.f540>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Bravo, P., Edwards, A., Barr, P. J., Scholl, I., Elwyn, G., McAllister, M., & the Cochrane Healthcare Quality Research Group, Cardiff University. (2015). Conceptualising patient empowerment: A mixed methods study. *BMC Health Services Research*, *15*(1), 252. <https://doi.org/10.1186/s12913-015-0907-z>
- Britten, N., Ekman, I., Naldemirci, Ö., Javinger, M., Hedman, H., & Wolf, A. (2020). Learning from Gothenburg model of person centred healthcare. *BMJ*, *370*, m2738. <https://doi.org/10.1136/bmj.m2738>
- Button, K. S., Ioannidis, J. P. A., Mokrysz, C., Nosek, B. A., Flint, J., Robinson, E. S. J., & Munafò, M. R. (2013). Power failure: Why small sample size undermines the reliability of neuroscience. *Nature Reviews Neuroscience*, *14*(5), 365–376. <https://doi.org/10.1038/nrn3475>
- Campbell, M., Fitzpatrick, R., Haines, A., Kinmonth, A. L., Sandercock, P., Spiegelhalter, D., & Tyrer, P. (2000). Framework for design and evaluation of complex interventions to improve health. *BMJ*, *321*(7262), 694–696. <https://doi.org/10.1136/bmj.321.7262.694>
- Carlbring, P., Andersson, G., Cuijpers, P., Riper, H., & Hedman-Lagerlöf, E. (2018). Internet-based vs. face-to-face cognitive behavior therapy for psychiatric and somatic disorders: An updated systematic review and meta-analysis. *Cognitive Behaviour Therapy*, *47*(1), 1–18. <https://doi.org/10.1080/16506073.2017.1401115>
- Carlbring, P., Maurin, L., Törngren, C., Linna, E., Eriksson, T., Sparthan, E., Strååt, M., Marquez von Hage, C., Bergman-Nordgren, L., & Andersson, G. (2011). Individually-tailored, internet-based treatment for anxiety disorders: A randomized controlled trial. *Behaviour Research and Therapy*, *49*(1), 18–24. <https://doi.org/10.1016/j.brat.2010.10.002>
- Castelein, S., van der Gaag, M., Bruggeman, R., van Busschbach, J. T., & Wiersma, D. (2008). Measuring empowerment among people with psychotic disorders: A comparison of three instruments. *Psychiatric Services*, *59*(11), 1338–1342. <https://doi.org/10.1176/ps.2008.59.11.1338>

REFERENCES

- Cattaneo, L. B., & Chapman, A. R. (2010). The process of empowerment: A model for use in research and practice. *American Psychologist*, *65*(7), 646–659. <https://doi.org/10.1037/a0018854>
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*(1), 155–159. <https://doi.org/10.1037/0033-2909.112.1.155>
- Cohen, B. M., & Harris, P. Q. (2023). Currently available means to achieve personalized psychiatry. *Personalized Medicine in Psychiatry*, *39–40*, 100105. <https://doi.org/10.1016/j.pmip.2023.100105>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates, Publishers.
- Conway, C. C., Forbes, M. K., Forbush, K. T., Fried, E. I., Hallquist, M. N., Kotov, R., Mullins-Sweatt, S. N., Shackman, A. J., Skodol, A. E., South, S. C., Sunderland, M., Waszczuk, M. A., Zald, D. H., Afzali, M. H., Bornovalova, M. A., Carragher, N., Docherty, A. R., Jonas, K. G., Krueger, R. F., . . . Eaton, N. R. (2019). A hierarchical taxonomy of psychopathology can transform mental health research. *Perspectives on Psychological Science*, *14*(3), 419–436. <https://doi.org/10.1177/1745691618810696>
- Corrigan, P. W., Faber, D., Rashid, F., & Leary, M. (1999). The construct validity of empowerment among consumers of mental health services. *Schizophrenia Research*, *38*(1), 77–84. [https://doi.org/10.1016/S0920-9964\(98\)00180-7](https://doi.org/10.1016/S0920-9964(98)00180-7)
- Craig, P., Dieppe, P., Macintyre, S., Michie, S., Nazareth, I., & Petticrew, M. (2008). Developing and evaluating complex interventions: The new Medical Research Council guidance. *BMJ*, *337*, a1655. <https://doi.org/10.1136/bmj.a1655>
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.
- Cross, S. P., Karin, E., Staples, L. G., Bisby, M. A., Ryan, K., Duke, G., Nielssen, O., Kayrouz, R., Fisher, A., Dear, B. F., & Titov, N. (2022). Factors associated with treatment uptake, completion, and subsequent symptom improvement in a national digital mental health service. *Internet Interventions*, *27*, 100506. <https://doi.org/10.1016/j.invent.2022.100506>
- Cuijpers, P., & Cristea, I. A. (2016). How to prove that your therapy is effective, even when it is not: A guideline. *Epidemiology and Psychiatric Sciences*, *25*(5), 428–435. <https://doi.org/10.1017/S2045796015000864>
- Cuijpers, P., Groeneweg, B., Miguel, C., Smit, D., Spijker, J., & Vrijzen, J. N. (2023). The effectiveness of peer support for individuals with mental illness: Systematic review and meta-analysis. *Psychological Medicine*, *53*(11), 5332–5341. <https://doi.org/10.1017/S0033291722002422>
- Cuijpers, P., Karyotaki, E., Reijnders, M., & Ebert, D. D. (2019). Was Eysenck right after all? A reassessment of the effects of psychotherapy for adult depression. *Epidemiology and Psychiatric Sciences*, *28*(1), 21–30. <https://doi.org/10.1017/S2045796018000057>
- Cuijpers, P., Reijnders, M., & Huibers, M. J. H. (2019). The role of common factors in psychotherapy outcomes. *Annual Review of Clinical Psychology*, *15*(1), 207–231. <https://doi.org/10.1146/annurev-clinpsy-050718-095424>

REFERENCES

- Cyril, S., Smith, B. J., & Renzaho, A. M. N. (2016). Systematic review of empowerment measures in health promotion. *Health Promotion International, 31*(4), 809–826. <https://doi.org/10.1093/heapro/dav059>
- Dahlin, M., Johansson, A., Romare, H., Carlbring, P., & Andersson, G. (2022). Worry-specific versus self-tailored internet-based treatments for generalized anxiety disorder, with scheduled support or support on demand: A pilot factorial design trial. *Internet Interventions, 28*, 100531. <https://doi.org/10.1016/j.invent.2022.100531>
- Delevry, D., & Le, Q. A. (2019). Effect of treatment preference in randomized controlled trials: Systematic review of the literature and meta-analysis. *The Patient – Patient-Centered Outcomes Research, 12*(6), 593–609. <https://doi.org/10.1007/s40271-019-00379-6>
- Donker, T., Blankers, M., Hedman, E., Ljótsson, B., Petrie, K., & Christensen, H. (2015). Economic evaluations of internet interventions for mental health: A systematic review. *Psychological Medicine, 45*(16), 3357–3376. <https://doi.org/10.1017/s0033291715001427>
- Doyle, C., Lennox, L., & Bell, D. (2013). A systematic review of evidence on the links between patient experience and clinical safety and effectiveness. *BMJ Open, 3*(1), e001570. <https://doi.org/10.1136/bmjopen-2012-001570>
- Ebert, D. D., Zarski, A. C., Christensen, H., Stikkelbroek, Y., Cuijpers, P., Berking, M., & Riper, H. (2015). Internet and computer-based cognitive behavioral therapy for anxiety and depression in youth: A meta-analysis of randomized controlled outcome trials. *PLoS One, 10*(3), e0119895. <https://doi.org/10.1371/journal.pone.0119895>
- Eifert, G. H., & Forsyth, J. P. (2005). *Acceptance and commitment therapy for anxiety disorders: A practitioner's treatment guide to using mindfulness, acceptance, and values-based behavior change*. New Harbinger Publications.
- Ekman, I., Swedberg, K., Taft, C., Lindseth, A., Norberg, A., Brink, E., Carlsson, J., Dahlin-Ivanoff, S., Johansson, I. L., Kjellgren, K., Lidén, E., Öhlén, J., Olsson, L. E., Rosén, H., Rydmark, M., & Sunnerhagen, K. S. (2011). Person-centered care – Ready for prime time. *European Journal of Cardiovascular Nursing, 10*(4), 248–251. <https://doi.org/10.1016/j.ejcnurse.2011.06.008>
- Ekman, N. (2023). *Development and testing of an observation-based method to assess person-centeredness in healthcare* [Doctoral dissertation, University of Gothenburg, Sahlgrenska Academy, Institute of Health and Care Sciences]. Gothenburg University Publications Electronic Archive. <https://hdl.handle.net/2077/75178>
- El Alaoui, S., Hedman, E., Ljotsson, B., & Lindefors, N. (2015). Long-term effectiveness and outcome predictors of therapist-guided internet-based cognitive-behavioural therapy for social anxiety disorder in routine psychiatric care. *BMJ Open, 5*(6), e007902. <https://doi.org/10.1136/bmjopen-2015-007902>
- Eriksson, M. C. M., Kivi, M., Hange, D., Petersson, E.-L., Ariai, N., Häggblad, P., Ågren, H., Spak, F., Lindblad, U., Johansson, B., & Björkelund, C. (2017). Long-term effects of Internet-delivered cognitive behavioral therapy for depression in primary care – The PRIM-NET controlled trial. *Scandinavian*

REFERENCES

- Journal of Primary Health Care*, 35(2), 126–136.
<https://doi.org/10.1080/02813432.2017.1333299>
- Etzelmueller, A., Vis, C., Karyotaki, E., Baumeister, H., Titov, N., Berking, M., Cuijpers, P., Riper, H., & Ebert, D. D. (2020). Effects of internet-based cognitive behavioral therapy in routine care for adults in treatment for depression and anxiety: Systematic review and meta-analysis. *Journal of Medical Internet Research*, 22(8), e18100. <https://doi.org/10.2196/18100>
- European Observatory of Health Systems and Policies. (2019). *Improving healthcare quality in Europe: Characteristics, effectiveness and implementation of different strategies*.
https://www.ncbi.nlm.nih.gov/books/NBK549276/pdf/Bookshelf_NBK549276.pdf
- European Patients Forum. (2017). Toolkit for patient organisations on patient empowerment. <https://www.eu-patient.eu/globalassets/library/publications/patient-empowerment---toolkit.pdf>
- Fang, S., & Ding, D. (2020). A meta-analysis of the efficacy of acceptance and commitment therapy for children. *Journal of Contextual Behavioral Science*, 15, 225–234. <https://doi.org/10.1016/j.jcbs.2020.01.007>
- Farkas, M., & Boevink, W. (2018). Peer delivered services in mental health care in 2018: Infancy or adolescence? *World Psychiatry*, 17(2), 222–224.
<https://doi.org/10.1002/wps.20530>
- Flückiger, C., Del Re, A. C., Wampold, B. E., & Horvath, A. O. (2018). The alliance in adult psychotherapy: A meta-analytic synthesis. *Psychotherapy*, 55(4), 316–340. <https://doi.org/10.1037/pst0000172>
- Flygare, A.-L., Engström, I., Hasselgren, M., Jansson-Fröjmark, M., Frejgrim, R., Andersson, G., & Holländare, F. (2020). Internet-based CBT for patients with depressive disorders in primary and psychiatric care: Is it effective and does comorbidity affect outcome? *Internet Interventions*, 19, 100303.
<https://doi.org/10.1016/j.invent.2019.100303>
- Fortuna, K. L., Naslund, J. A., LaCroix, J. M., Bianco, C. L., Brooks, J. M., Zisman-Ilani, Y., Muralidharan, A., & Deegan, P. (2020). Digital peer support mental health interventions for people with a lived experience of a serious mental illness: Systematic review. *JMIR Mental Health*, 7(4), e16460.
<https://doi.org/10.2196/16460>
- Fortuna, K. L., Solomon, P., & Rivera, J. (2022). An update of peer support/peer provided services underlying processes, benefits, and critical ingredients. *Psychiatric Quarterly*, 93(2), 571–586. <https://doi.org/10.1007/s11126-022-09971-w>
- Fumagalli, L. P., Radaelli, G., Lettieri, E., Bertele, P., & Masella, C. (2015). Patient empowerment and its neighbours: Clarifying the boundaries and their mutual relationships. *Health Policy*, 119(3), 384–394.
<https://doi.org/10.1016/j.healthpol.2014.10.017>
- Gervind, E., Salem, M. B., Svanborg, C., Nyström, M. E., Lilja, J. L., Kaldo, V., & Weineland, S. (2024). The influence of organizational models on the implementation of internet-based cognitive behavior therapy in primary care: A

REFERENCES

- mixed methods study using the RE-AIM framework. *Internet Interventions*, 35, 100698. <https://doi.org/10.1016/j.invent.2023.100698>
- Gloster, A. T., Walder, N., Levin, M. E., Twohig, M. P., & Karekla, M. (2020). The empirical status of acceptance and commitment therapy: A review of meta-analyses. *Journal of Contextual Behavioral Science*, 18, 181–192. <https://doi.org/https://doi.org/10.1016/j.jcbs.2020.09.009>
- Greco, L. A., Lambert, W., & Baer, R. A. (2008). Psychological inflexibility in childhood and adolescence: Development and evaluation of the Avoidance and Fusion Questionnaire for Youth. *Psychological Assessment*, 20(2), 93.
- Hadjistavropoulos, H. D., Pugh, N. E., Hesser, H., & Andersson, G. (2017). Therapeutic alliance in internet-delivered cognitive behaviour therapy for depression or generalized anxiety. *Clinical Psychology & Psychotherapy*, 24(2), 451–461. <https://doi.org/10.1002/cpp.2014>
- Hansson, L., & Björkman, T. (2005). Empowerment in people with a mental illness: Reliability and validity of the Swedish version of an empowerment scale. *Scandinavian Journal of Caring Sciences*, 19(1), 32–38. <https://doi.org/10.1111/j.1471-6712.2004.00310.x>
- Hatcher, R. L., & Gillaspay, J. A. (2006). Development and validation of a revised short version of the Working Alliance Inventory. *Psychotherapy Research*, 16(1), 12–25.
- Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (3rd ed.). The Guilford Press.
- Hayes, L. L., & Ciarrochi, J. V. (2015). *The thriving adolescent: Using acceptance and commitment therapy and positive psychology to help teens manage emotions, achieve goals, and build connection*. New Harbinger Publications.
- Hayes, S. C. (2004). Acceptance and commitment therapy, relational frame theory, and the third wave of behavioral and cognitive therapies. *Behavior Therapy*, 35(4), 639–665. [https://doi.org/10.1016/S0005-7894\(04\)80013-3](https://doi.org/10.1016/S0005-7894(04)80013-3)
- Hayes, S. C., Ciarrochi, J., Hofmann, S. G., Chin, F., & Sahdra, B. (2022). Evolving an idionomic approach to processes of change: Towards a unified personalized science of human improvement. *Behaviour Research and Therapy*, 156, 104155. <https://doi.org/10.1016/j.brat.2022.104155>
- Hayes, S. C., & Hofmann, S. G. (2021). “Third-wave” cognitive and behavioral therapies and the emergence of a process-based approach to intervention in psychiatry. *World Psychiatry*, 20(3), 363–375. <https://doi.org/10.1002/wps.20884>
- Hayes, S. C., Levin, M. E., Plumb-Villardaga, J., Villatte, J. L., & Pistorello, J. (2013). Acceptance and commitment therapy and contextual behavioral science: Examining the progress of a distinctive model of behavioral and cognitive therapy. *Behavior Therapy*, 44(2), 180–198. <https://doi.org/10.1016/j.beth.2009.08.002>
- Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour Research and Therapy*, 44(1), 1–25. <https://doi.org/10.1016/j.brat.2005.06.006>
- Hayes, S. C., Pistorello, J., & Levin, M. E. (2012). Acceptance and commitment therapy as a unified model of behavior change. *The Counseling Psychologist*, 40(7), 976–1002. <https://doi.org/10.1177/0011000012460836>

REFERENCES

- Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Experimental avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology, 64*(6), 1152–1168. <https://doi.org/10.1037//0022-006x.64.6.1152>
- Hedman-Lagerlöf, E., Carlbring, P., Svärdman, F., Riper, H., Cuijpers, P., & Andersson, G. (2023). Therapist-supported internet-based cognitive behaviour therapy yields similar effects as face-to-face therapy for psychiatric and somatic disorders: An updated systematic review and meta-analysis. *World Psychiatry, 22*(2), 305–314. <https://doi.org/10.1002/wps.21088>
- Hickmann, E., Richter, P., & Schlieter, H. (2022). All together now – Patient engagement, patient empowerment, and associated terms in personal healthcare. *BMC Health Services Research, 22*(1), 1116. <https://doi.org/10.1186/s12913-022-08501-5>
- Holländare, F., Gustafsson, S. A., Berglind, M., Grape, F., Carlbring, P., Andersson, G., Hadjistavropoulos, H., & Tillfors, M. (2016). Therapist behaviours in internet-based cognitive behaviour therapy (ICBT) for depressive symptoms. *Internet Interventions, 3*, 1–7. <https://doi.org/10.1016/j.invent.2015.11.002>
- Holmes, E. A., Ghaderi, A., Harmer, C. J., Ramchandani, P. G., Cuijpers, P., Morrison, A. P., Roiser, J. P., Bockting, C. L. H., O’Connor, R. C., Shafran, R., Moulds, M. L., & Craske, M. G. (2018). The Lancet Psychiatry Commission on psychological treatments research in tomorrow’s science. *Lancet Psychiatry, 5*(3), 237–286. [https://doi.org/10.1016/s2215-0366\(17\)30513-8](https://doi.org/10.1016/s2215-0366(17)30513-8)
- Holmqvist, R., & Herlofson, J. (2019, April 9). Fokus på individen - framtidens melodi inom psykiatrisk behandling [Focus on the Individual - The Future Tune in Psychiatric Treatment]. *Läkartidningen, 116*(FMCI), 15. [https://lakartidningen.se/aktuellt/kultur-2/2019/04/fokus-pa-individen-framtidens-melodi-inom-psykiatrisk-behandling/kus-pa-individen-framtidens-melodi-inom-psykiatrisk-behandling\(lakartidningen.se\)](https://lakartidningen.se/aktuellt/kultur-2/2019/04/fokus-pa-individen-framtidens-melodi-inom-psykiatrisk-behandling/kus-pa-individen-framtidens-melodi-inom-psykiatrisk-behandling(lakartidningen.se))
- Holst, A., Nejati, S., Björkelund, C., Eriksson, M. C. M., Hange, D., Kivi, M., Wikberg, C., & Petersson, E.-L. (2017). Patients’ experiences of a computerised self-help program for treating depression – A qualitative study of internet mediated cognitive behavioural therapy in primary care. *Scandinavian Journal of Primary Health Care, 35*(1), 46–53. <https://doi.org/10.1080/02813432.2017.1288813>
- Horvath, A. O., Del Re, A. C., Fluckiger, C., & Symonds, D. (2011). Alliance in individual psychotherapy. *Psychotherapy (Chic), 48*(1), 9–16. <https://doi.org/10.1037/a0022186>
- Johansson, O., Michel, T., Andersson, G., & Paxling, B. (2015). Experiences of non-adherence to internet-delivered cognitive behavior therapy: A qualitative study. *Internet Interventions, 2*(2), 137–142. <https://doi.org/10.1016/j.invent.2015.02.006>
- Jorge-Monteiro, M. F., & Ornelas, J. H. (2014). Properties of the Portuguese version of the empowerment scale with mental health organization users. *International Journal of Mental Health Systems, 8*(1), 48. <https://doi.org/10.1186/1752-4458-8-48>

REFERENCES

- Jørgensen, K., & Rendtorff, J. D. (2018). Patient participation in mental health care – Perspectives of healthcare professionals: An integrative review. *Scandinavian Journal of Caring Sciences*, *32*(2), 490–501.
<https://doi.org/10.1111/scs.12531>
- Joseph, R. (2020). The theory of empowerment: A critical analysis with the theory evaluation scale. *Journal of Human Behavior in the Social Environment*, *30*(2), 138–157. <https://doi.org/10.1080/10911359.2019.1660294>
- Kaiser, J., Hanschmidt, F., & Kersting, A. (2021). The association between therapeutic alliance and outcome in internet-based psychological interventions: A meta-analysis. *Computers in Human Behavior*, *114*, 106512.
<https://doi.org/10.1016/j.chb.2020.106512>
- Kaiser, T., Volkmann, C., Volkmann, A., Karyotaki, E., Cuijpers, P., & Brakemeier, E.-L. (2022). Heterogeneity of treatment effects in trials on psychotherapy of depression. *Clinical Psychology: Science and Practice*, *29*(3), 294–303.
<https://doi.org/10.1037/cps0000079>
- Kaldo, V., Ramnerö, J., & Jernelöv, S. (2015). Involving clients in treatment methods: A neglected interaction in the therapeutic relationship. *Journal of Consulting and Clinical Psychology*, *83*(6), 1136–1141.
<https://doi.org/10.1037/ccp0000039>
- Karver, M. S., De Nadai, A. S., Monahan, M. F., & Shirk, S. R. (2018). Meta-analysis of the prospective relation between alliance and outcome in child and adolescent psychotherapy. *Psychotherapy*, *55*, 341–355.
- Katharine, A. S., Charlotte, B., Maria, F.-J., Joseph, F., Tom Van, D., Carmen, M., Per, C., Ulrich, W. E.-P., Nikolaos, K., Heleen, R., Stephane, M., John, T., & Andrea, C. (2023). Digital mental health: challenges and next steps. *BMJ Mental Health*, *26*(1), e300670. <https://doi.org/10.1136/bmjment-2023-300670>
- Kazdin, A. E. (2008). Evidence-based treatment and practice: New opportunities to bridge clinical research and practice, enhance the knowledge base, and improve patient care. *American Psychologist*, *63*(3), 146–159.
<https://doi.org/10.1037/0003-066X.63.3.146>
- Kazdin, A. E. (2023). Drawing causal inferences from randomized controlled trials in psychotherapy research. *Psychotherapy Research*, *33*(8), 991–1003.
<https://doi.org/10.1080/10503307.2022.2130112>
- Kelson, J., Rollin, A., Ridout, B., & Campbell, A. (2019). Internet-delivered acceptance and commitment therapy for anxiety treatment: Systematic review. *Journal of Medical Internet Research*, *21*(1), e12530.
<https://doi.org/10.2196/12530>
- Kendler, K. S. (2012). The dappled nature of causes of psychiatric illness: Replacing the organic-functional/hardware-software dichotomy with empirically based pluralism. *Molecular Psychiatry*, *17*(4), 377–388.
<https://doi.org/10.1038/mp.2011.182>
- Klimczak, K. S., San Miguel, G. G., Mukasa, M. N., Twohig, M. P., & Levin, M. E. (2023). A systematic review and meta-analysis of self-guided online acceptance and commitment therapy as a transdiagnostic self-help intervention. *Cognitive Behaviour Therapy*, *52*(3), 269–294.
<https://doi.org/10.1080/16506073.2023.2178498>

REFERENCES

- Kohn, R., Saxena, S., Levav, I., & Saraceno, B. (2004). The treatment gap in mental health care. *Bulletin of the World Health Organization*, *82*(11), 858–866.
- Kroska, E. B., Roche, A. I., Adamowicz, J. L., & Stegall, M. S. (2020). Psychological flexibility in the context of COVID-19 adversity: Associations with distress. *Journal of Contextual Behavioral Science*, *18*, 28–33. <https://doi.org/10.1016/j.jcbs.2020.07.011>
- Kumar, V., Sattar, Y., Bseiso, A., Khan, S., & Rutkofsky, I. H. (2017). The effectiveness of internet-based cognitive behavioral therapy in treatment of psychiatric disorders. *Cureus*, *9*(8), e1626. <https://doi.org/10.7759/cureus.1626>
- Lachin, J. M. (2016). Fallacies of last observation carried forward analyses. *Clinical Trials*, *13*(2), 161–168. <https://doi.org/10.1177/1740774515602688>
- Lakens, D. (2013). Calculating and reporting effect sizes to facilitate cumulative science: A practical primer for t-tests and ANOVAs [Review]. *Frontiers in Psychology*, *4*. <https://www.frontiersin.org/articles/10.3389/fpsyg.2013.00863>
- Lilja, J. L., Rupcic Ljustina, M., Nissling, L., Larsson, A. C., & Weinland, S. (2021). Youths' and parents' experiences and perceived effects of internet-based cognitive behavioral therapy for anxiety disorders in primary care: Mixed methods study. *JMIR Pediatrics and Parenting*, *4*(4), e26842. <https://doi.org/10.2196/26842>
- Lin, J., Klatt, L. I., McCracken, L. M., & Baumeister, H. (2018). Psychological flexibility mediates the effect of an online-based acceptance and commitment therapy for chronic pain: An investigation of change processes. *PAIN*, *159*(4), 663–672. <https://doi.org/10.1097/j.pain.0000000000001134>
- Lindhiem, O., Bennett, C. B., Trentacosta, C. J., & McLearn, C. (2014). Client preferences affect treatment satisfaction, completion, and clinical outcome: A meta-analysis. *Clinical Psychology Review*, *34*(6), 506–517. <https://doi.org/10.1016/j.cpr.2014.06.002>
- Lindner, P., Frykheden, O., Forsström, D., Andersson, E., Ljótsson, B., Hedman, E., Andersson, G., & Carlbring, P. (2016). The Brunnsvikén Brief Quality of Life Scale (BBQ): Development and psychometric evaluation. *Cognitive Behaviour Therapy*, *45*(3), 182–195.
- Lindner, P., Olsson, E. L., Johnsson, A., Dahlin, M., Andersson, G., & Carlbring, P. (2014). The impact of telephone versus e-mail therapist guidance on treatment outcomes, therapeutic alliance and treatment engagement in internet-delivered CBT for depression: A randomised pilot trial. *Internet Interventions*, *1*(4), 182–187. <https://doi.org/https://doi.org/10.1016/j.invent.2014.09.001>
- Luborsky, L., Rosenthal, R., Diguer, L., Andrusyna, T. P., Berman, J. S., Levitt, J. T., Seligman, D. A., & Krause, E. D. (2002). The dodo bird verdict is alive and well – mostly. *Clinical Psychology: Science and Practice*, *9*(1), 2–12. <https://doi.org/10.1093/clipsy.9.1.2>
- Luo, C., Sanger, N., Singhal, N., Pattrick, K., Shams, I., Shahid, H., Hoang, P., Schmidt, J., Lee, J., Haber, S., Puckering, M., Buchanan, N., Lee, P., Ng, K., Sun, S., Kheyson, S., Chung, D. C.-Y., Sanger, S., Thabane, L., & Samman, Z. (2020). A comparison of electronically-delivered and face to face cognitive behavioural therapies in depressive disorders: A systematic review

REFERENCES

- and meta-analysis. *eClinicalMedicine*, 24.
<https://doi.org/10.1016/j.eclinm.2020.100442>
- Mårtensson, L., & Hensing, G. (2012). Health literacy – A heterogeneous phenomenon: A literature review. *Scandinavian Journal of Caring Sciences*, 26(1), 151–160. <https://doi.org/10.1111/j.1471-6712.2011.00900.x>
- Martin, D. J., Garske, J. P., & Davis, M. K. (2000). Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 68(3), 438–450.
- Joseph A. Maxwell & Heidi M. Levitt (2023) How qualitative methods advance the study of causation in psychotherapy research, *Psychotherapy Research*, 33:8, 1019-1030, <https://doi.org/10.1080/10503307.2023.2181112>
- McCracken, L. M., Badinlou, F., Buhrman, M., & Brocki, K. C. (2021). The role of psychological flexibility in the context of COVID-19: Associations with depression, anxiety, and insomnia. *Journal of Contextual Behavioral Science* 19, 28–35.
- Mergl, R., Henkel, V., Allgaier, A.-K., Kramer, D., Hautzinger, M., Kohnen, R., Coyne, J., & Hegerl, U. (2010). Are treatment preferences relevant in response to serotonergic antidepressants and cognitive-behavioral therapy in depressed primary care patients? Results from a randomized controlled trial including a patients' choice arm. *Psychotherapy and Psychosomatics*, 80, 39–47.
- Mohr, D. C., Ho, J., Hart, T. L., Baron, K. G., Berendsen, M., Beckner, V., Cai, X., Cuijpers, P., Spring, B., Kinsinger, S. W., Schroder, K. E., & Duffecy, J. (2014). Control condition design and implementation features in controlled trials: A meta-analysis of trials evaluating psychotherapy for depression. *Translational Behavioral Medicine*, 4(4), 407–423.
<https://doi.org/10.1007/s13142-014-0262-3>
- Mohr, D. C., Spring, B., Freedland, K. E., Beckner, V., Arian, P., Hollon, S. D., Ockene, J., & Kaplan, R. (2009). The selection and design of control conditions for randomized controlled trials of psychological interventions. *Psychotherapy and Psychosomatics*, 78(5), 275–284.
<https://doi.org/10.1159/000228248>
- Möller, H. J. (2011). Effectiveness studies: Advantages and disadvantages. *Dialogues in Clinical Neuroscience*, 13(2), 199–207.
<https://doi.org/10.31887/DCNS.2011.13.2/hmoeller>
- Montgomery, S. A., & Asberg, M. (1979). A new depression scale designed to be sensitive to change. *British Journal of Psychiatry*, 134, 382–389.
<https://doi.org/10.1192/bjp.134.4.382>
- Morris, S. B., Huang, J., Zhao, L., Sergent, J. D., & Neuhengen, J. (2014). Measurement equivalence of the empowerment scale for White and Black persons with severe mental illness. *Psychiatric Rehabilitation Journal*, 37(4), 277–283. <https://doi.org/10.1037/prj0000069>
- Morse, J. M. (2015). “Data were saturated ...”. *Qualitative Health Research*, 25(5), 587–588. <https://doi.org/10.1177/1049732315576699>
- Mulder, R., Murray, G., & Rucklidge, J. (2017). Common versus specific factors in psychotherapy: Opening the black box. *The Lancet Psychiatry*, 4(12), 953–962. [https://doi.org/10.1016/S2215-0366\(17\)30100-1](https://doi.org/10.1016/S2215-0366(17)30100-1)

REFERENCES

- Munder, T., Wilmers, F., Leonhart, R., Linster, H. W., & Barth, J. (2010). Working Alliance Inventory–Short Revised (WAI–SR): Psychometric properties in outpatients and inpatients. *Clinical Psychology & Psychotherapy: An International Journal of Theory & Practice*, *17*(3), 231–239.
- Mutschler, C., Bellamy, C., Davidson, L., Lichtenstein, S., & Kidd, S. (2022). Implementation of peer support in mental health services: A systematic review of the literature. *Psychological services*, *19*(2), 360–374. <https://doi.org/10.1037/ser0000531>
- National Board of Health and Welfare [Socialstyrelsen]. (2020). *Att arbeta evidensbaserat: Ett stöd för praktiskt arbete*. <https://www.socialstyrelsen.se/global-assets/sharepoint-dokument/artikelkatalog/ovrigt/2020-10-6930.pdf>
- National Institute for Health and Care Excellence. (2021). *NICE creates new menu of treatment options for those suffering from depression*. <https://www.nice.org.uk/news/nice-creates-new-menu-of-treatment-options-for-those-suffering-from-depression>
- NHS England. (n.d.-a). *Decision support tools*. Retrieved February 2, 2024, from <https://www.england.nhs.uk/personalisedcare/shared-decision-making/decision-support-tools/>
- NHS England. (n.d.-b). *Personalised care and support planning*. Retrieved February 2, 2024, from <https://www.england.nhs.uk/personalisedcare/pcsp/>
- Nomeikaite, A., Gelezelyte, O., Berger, T., Andersson, G., & Kazlauskas, E. (2023). Exploring reasons for usage discontinuation in an internet-delivered stress recovery intervention: A qualitative study. *Internet Interventions*, *34*, 100686. <https://doi.org/https://doi.org/10.1016/j.invent.2023.100686>
- Noordink, T., Verharen, L., Schalk, R., & Van Regenmortel, T. (2023). The complexity of constructing empowerment measuring instruments: A Delphi study. *European Journal of Social Work*, 1–14. <https://doi.org/10.1080/13691457.2023.2168627>
- Nordén, H. & Falkman, M. (Eds). (2018). *Peer support: Nutid, dåtid och framtid för en ny profession inom psykiatri, vård och omsorg*. Åtta.45, Stockholm.
- Nordgren, L. B., Hedman, E., Etienne, J., Bodin, J., Kadowaki, Å., Eriksson, S., Lindkvist, E., Andersson, G., & Carlbring, P. (2014). Effectiveness and cost-effectiveness of individually tailored internet-delivered cognitive behavior therapy for anxiety disorders in a primary care population: A randomized controlled trial. *Behaviour Research and Therapy*, *59*, 1–11. <https://doi.org/https://doi.org/10.1016/j.brat.2014.05.007>
- NSPH. (2023). *NSPH deltar i europeiskt samarbete kring Peer Support*. Retrieved February 5, 2024, from <https://nspH.se/2023/06/01/nspH-deltar-i-europeiskt-samarbete-kring-peer-support/>
- Nye, A., Delgadillo, J., & Barkham, M. (2023). Efficacy of personalized psychological interventions: A systematic review and meta-analysis. *Journal of Consulting and Clinical Psychology*, *91*(7), 389–397. <https://doi.org/10.1037/ccp0000820>
- Olthuis, J. V., Watt, M. C., Bailey, K., Hayden, J. A., & Stewart, S. H. (2016). Therapist-supported internet cognitive behavioural therapy for anxiety disorders in adults. *Cochrane Database of Systematic Reviews*, *3*(3), Cd011565. <https://doi.org/10.1002/14651858.CD011565.pub2>

REFERENCES

- Patel, V., Flisher, A. J., Hetrick, S., & McGorry, P. (2007). Mental health of young people: A global public-health challenge. *The Lancet*, *369*(9569), 1302–1313. [https://doi.org/10.1016/S0140-6736\(07\)60368-7](https://doi.org/10.1016/S0140-6736(07)60368-7)
- Probst, Greta H., Berger, T., & Flückiger, C. (2019). The alliance-outcome relation in internet-based interventions for psychological disorders: A correlational meta-analysis. *Verhaltenstherapie*. <https://doi.org/10.1159/000503432>
- Ralston, A. L., Andrews, A. R., III, & Hope, D. A. (2019). Fulfilling the promise of mental health technology to reduce public health disparities: Review and research agenda. *Clinical Psychology: Science and Practice*, *26*(1), 60.
- Rehm, J., Üstün, T. B., Saxena, S., Nelson, C. B., Chatterji, S., Ivis, F., & Adlaf, E. (1999). On the development and psychometric testing of the WHO screening instrument to assess disablement in the general population. *International Journal of Methods in Psychiatric Research*, *8*(2), 110–122. <https://doi.org/10.1002/mp.61>
- Reynolds, S., Wilson, C., Austin, J., & Hooper, L. (2012). Effects of psychotherapy for anxiety in children and adolescents: A meta-analytic review. *Clinical Psychology Review*, *32*(4), 251–262. <https://doi.org/10.1016/j.cpr.2012.01.005>
- Rickardsson, J., Gentili, C., Holmström, L., Zetterqvist, V., Andersson, E., Persson, J., Lekander, M., Ljótsson, B., & Wicksell, R. K. (2021). Internet-delivered acceptance and commitment therapy as microlearning for chronic pain: A randomized controlled trial with 1-year follow-up. *European Journal of Pain*, *25*(5), 1012–1030. <https://doi.org/10.1002/ejp.1723>
- Roca, M., Gili, M., Garcia-Garcia, M., Salva, J., Vives, M., Garcia Campayo, J., & Comas, A. (2009). Prevalence and comorbidity of common mental disorders in primary care. *Journal of Affective Disorders*, *119*(1), 52–58. <https://doi.org/10.1016/j.jad.2009.03.014>
- Rogers, E. S., Chamberlin, J., Ellison, M. L., & Crean, T. (1997). A consumer-constructed scale to measure empowerment among users of mental health services. *Psychiatric Services*, *48*(8), 1042–1047. <https://doi.org/10.1176/ps.48.8.1042>
- Rogers, E. S., Ralph, R. O., & Salzer, M. S. (2010). Validating the empowerment scale with a multisite sample of consumers of mental health services. *Psychiatric Services*, *61*(9), 933–936. <https://doi.org/10.1176/ps.2010.61.9.933>
- Rosenberg, D., & Argentzell, E. (2018). Service users experience of peer support in Swedish mental health care: A “tipping point” in the care-giving culture? *Journal of Psychosocial Rehabilitation and Mental Health*, *5*(1), 53–61. <https://doi.org/10.1007/s40737-018-0109-1>
- Rozental, A., Andersson, G., & Carlbring, P. (2019). In the absence of effects: An individual patient data meta-analysis of non-response and its predictors in internet-based cognitive behavior therapy [systematic review]. *Frontiers in Psychology*, *10*. <https://www.frontiersin.org/articles/10.3389/fpsyg.2019.00589>
- SFS 2014:821. *Patientlag*. <https://rkrattsbaser.gov.se/sfst?bet=2014:821>
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Houghton, Mifflin and Company.

REFERENCES

- Sheehan, D. V., Lecrubier, Y., Sheehan, K. H., Amorim, P., Janavs, J., Weiller, E., Hergueta, T., Baker, R., & Dunbar, G. C. (1998). The Mini-International Neuropsychiatric Interview (M.I.N.I.): The development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *Journal of Clinical Psychiatry*, *59 Suppl 20*, 22–33; quiz 34–57.
- Sheehan, D. V., Sheehan, K. H., Shytle, R. D., Janavs, J., Bannon, Y., Rogers, J. E., Milo, K. M., Stock, S. L., & Wilkinson, B. (2010). Reliability and validity of the Mini International Neuropsychiatric Interview for Children and Adolescents (MINI-KID). *Journal of Clinical Psychiatry*, *71*(3), 313–326. <https://doi.org/10.4088/JCP.09m05305whi>
- Silfvernagel, K., Carlbring, P., Kabo, J., Edström, S., Eriksson, J., Månson, L., & Andersson, G. (2012). Individually tailored internet-based treatment for young adults and adults with panic attacks: Randomized controlled trial. *Journal of Medical Internet Research*, *14*(3), e65. <https://doi.org/10.2196/jmir.1853>
- Silfvernagel, K., Westlinder, A., Andersson, S., Bergman, K., Diaz Hernandez, R., Fallhagen, L., Lundqvist, I., Masri, N., Viberg, L., Forsberg, M.-L., Lind, M., Berger, T., Carlbring, P., & Andersson, G. (2018). Individually tailored internet-based cognitive behaviour therapy for older adults with anxiety and depression: A randomised controlled trial. *Cognitive Behaviour Therapy*, *47*(4), 286–300. <https://doi.org/10.1080/16506073.2017.1388276>
- Singer, J.D. & Willett, J.B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. Oxford University Press.
- Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., Salazar de Pablo, G., Il Shin, J., Kirkbride, J. B., Jones, P., Kim, J. H., Kim, J. Y., Carvalho, A. F., Seeman, M. V., Correll, C. U., & Fusar-Poli, P. (2022). Age at onset of mental disorders worldwide: Large-scale meta-analysis of 192 epidemiological studies. *Molecular Psychiatry*, *27*(1), 281–295. <https://doi.org/10.1038/s41380-021-01161-7>
- Solomon, P. (2004). Peer support/peer provided services underlying processes, benefits, and critical ingredients. *Psychiatric Rehabilitation Journal*, *27*(4), 392–401. <https://doi.org/10.2975/27.2004.392.401>
- SOU 2016:2. Effektiv vård: Slutbetänkande av En nationell samordnare för effektivare resursutnyttjande inom hälso- och sjukvården. https://www.riksdagen.se/sv/dokument-och-lagar/dokument/statens-offentliga-utredningar/effektiv-var_d_h4b32/
- SOU 2018:39. *God och nära vård: en primärvårdsreform*. <https://www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2018/06/sou-201839/>
- SOU 2021:6. *God och nära vård: Rätt stöd till psykisk hälsa*. https://www.regeringen.se/contentassets/9d0e520a47e547a2904608427f3aca7c/sou-2021_6--god-och-nara-vard---ratt-stod-till-psykisk-halsa.pdf
- Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine*, *166*(10), 1092–1097. <https://doi.org/10.1001/archinte.166.10.1092>

REFERENCES

- Spitzer, R. L., Williams, J. B. W., Kroenke, K., Linzer, M., deGruy, F. V., III, Hahn, S. R., Brody, D., & Johnson, J. G. (1994). Utility of a new procedure for diagnosing mental disorders in primary care: The PRIME-MD 1000 Study. *JAMA*, *272*(22), 1749–1756. <https://doi.org/10.1001/jama.1994.03520220043029>
- Stabbe, O. K., Rolffs, J. L., & Rogge, R. D. (2019). Flexibly and/or inflexibly embracing life: Identifying fundamental approaches to life with latent profile analyses on the dimensions of the Hexaflex model. *Journal of Contextual Behavioral Science*, *12*, 106–118. <https://doi.org/10.1016/j.jcbs.2019.03.003>
- Stjerneklar, S., Hougaard, E., & Thastum, M. (2019). Guided internet-based cognitive behavioral therapy for adolescent anxiety: Predictors of treatment response. *Internet Interventions*, *15*, 116–125. <https://doi.org/10.1016/j.invent.2019.01.003>
- Steel, Z., Marnane, C., Iranpour, C., Chey, T., Jackson, J. W., Patel, V., & Silove, D. (2014). The global prevalence of common mental disorders: a systematic review and meta-analysis 1980–2013. *International journal of epidemiology*, *43*(2), 476–493. <https://doi.org/10.1093/ije/dyu038>
- Stockton, D., Kellett, S., Berrios, R., Sirois, F., Wilkinson, N., & Miles, G. (2019). Identifying the underlying mechanisms of change during acceptance and commitment therapy (ACT): A systematic review of contemporary mediation studies. *Behavioural and Cognitive Psychotherapy*, *47*(3), 332–362. <https://doi.org/10.1017/S1352465818000553>
- Substance Abuse and Mental Health Services Administration (SAMHSA). (2015). Core competencies for peer workers in behavioral health services. https://www.samhsa.gov/sites/default/files/programs_campaigns/brss_tac/core-competencies_508_12_13_18.pdf
- Svensson, M., Nilsson, T., Perrin, S., Johansson, H., Viborg, G., Falkenström, F., & Sandell, R. (2021). The effect of patient’s choice of cognitive behavioural or psychodynamic therapy on outcomes for panic disorder: A doubly randomised controlled preference trial. *Psychotherapy and Psychosomatics*, *90*(2), 107–118. <https://doi.org/10.1159/000511469>
- Swedish Agency for Health and Care Services Analysis [Myndigheten för vård och omsorgsanalys] (2021). A law requiring review: Follow-up on the Patient Act’s impact, with a focus on freedom of choice (Report 2021:10). ISBN 978-91-88935-38-0.
- Swedish Association of Local Authorities and Regions [Sveriges Kommuner och Regioner, (SKR)] (2018). Person-centred care in Sweden. ISBN: 978-91-7585-631-5. Stockholm
- Swedish Association of Local Authorities and Regions [Sveriges Kommuner och Regioner, (SKR)]. (2021). Internetbaserat stöd och behandling. Sveriges kommuner och regioner. <https://skr.se/skr/halsasjukvard/utvecklingavverksamhet/ehalsa/internetbaseratstodoch-behandling.internetbaseratstodochbehandling.html>.
- Swedish Association of Local Authorities and Regions [Sveriges Kommuner och Regioner, (SKR)]. (2022). *One more step: A guide to more co-created health, care, and welfare through patient contracts*. ISBN 978-91-8047-056-8

REFERENCES

- Swift, J. K., & Callahan, J. L. (2009). The impact of client treatment preferences on outcome: A meta-analysis. *Journal of Clinical Psychology, 65*(4), 368–381. <https://doi.org/10.1002/jclp.20553>
- Swift, J. K., Callahan, J. L., Cooper, M., & Parkin, S. R. (2018). The impact of accommodating client preference in psychotherapy: A meta-analysis. *Journal of Clinical Psychology, 74*(11), 1924–1937. <https://doi.org/10.1002/jclp.22680>
- The Health Foundation. (2016). Person-centred care made simple: What everyone should know about person-centred care (ISBN 978-1-906461-56-0). https://www.health.org.uk/sites/default/files/PersonCentredCare-MadeSimple_0.pdf
- Titov, N., Andrews, G., Johnston, L., Robinson, E., & Spence, J. (2010). Transdiagnostic internet treatment for anxiety disorders: A randomized controlled trial. *Behaviour Research and Therapy, 48*(9), 890–899. <https://doi.org/10.1016/j.brat.2010.05.014>
- Titov, N., Dear, B., Niessen, O., Staples, L., Hadjistavropoulos, H., Nugent, M., Adlam, K., Nordgreen, T., Bruvik, K. H., Hovland, A., Repål, A., Mathiasen, K., Kraepelien, M., Blom, K., Svanborg, C., Lindefors, N., & Kaldo, V. (2018). ICBT in routine care: A descriptive analysis of successful clinics in five countries. *Internet Interventions, 13*, 108–115. <https://doi.org/10.1016/j.invent.2018.07.006>
- Titov, N., Dear, B. F., Schwencke, G., Andrews, G., Johnston, L., Craske, M. G., & McEvoy, P. (2011). Transdiagnostic internet treatment for anxiety and depression: A randomised controlled trial. *Behaviour Research and Therapy, 49*(8), 441–452. <https://doi.org/10.1016/j.brat.2011.03.007>
- Twohig, M. P., & Levin, M. E. (2017). Acceptance and commitment therapy as a treatment for anxiety and depression: A review. *Psychiatric Clinics of North America, 40*(4), 751–770. <https://doi.org/10.1016/j.psc.2017.08.009>
- Uckelstam, C. J., Holmqvist, R., Philips, B., & Falkenström, F. (2018). A relational perspective on the association between working alliance and treatment outcome. *Psychotherapy Research, 30*. 1–10. [10.1080/10503307.2018.1516306](https://doi.org/10.1080/10503307.2018.1516306).
- van Ballegooijen, W., Cuijpers, P., van Straten, A., Karyotaki, E., Andersson, G., Smit, J. H., & Riper, H. (2014). Adherence to internet-based and face-to-face cognitive behavioural therapy for depression: A meta-analysis. *PLoS One, 9*(7), e100674. <https://doi.org/10.1371/journal.pone.0100674>
- Vernmark, K. (2017). *Therapeutic alliance and different treatment formats when delivering internet-based CBT for depression* [PhD dissertation, Linköping University Electronic Press]. <https://doi.org/10.3384/diss.diva-142389>
- Vigerland, S., Lenhard, F., Bonnert, M., Lalouni, M., Hedman, E., Ahlen, J., Olén, O., Serlachius, E., & Ljótsson, B. (2016). Internet-delivered cognitive behavior therapy for children and adolescents: A systematic review and meta-analysis. *Clinical Psychology Review, 50*, 1–10. <https://doi.org/10.1016/j.cpr.2016.09.005>
- Vindelfjärd, A.N. (Ed). (2020). *Klinisk forskning år 2030 – 10 konkreta förslag för att stärka forskning som förbättrar och räddar liv* [Clinical research 2030 – 10

REFERENCES

- concrete proposals to strengthen research that improves and saves lives]. Forska!Sverige.
- Wallström, S., Ekman, I., & Taft, C. (2016). Svenskarnas syn på personcentrerad vård [The Swedes' view of person-centered care]. In U. Andersson, J. Ohlsson, H. Oscarsson, & M. Oskarsson (Eds.), *Larmar och gör sig till: SOM-undersökningen 2016* (pp. 197–210). SOM-rapport nr 70.
- Wampold, B. E. (2015). How important are the common factors in psychotherapy? An update. *World Psychiatry, 14*(3), 270–277. <https://doi.org/10.1002/wps.20238>
- Wampold, B.E., Baldwin, S.A., Holtforth, M.G., & Ime, Z.E. (2017). What characterizes effective therapists?. In L. G. Castonguay & C. E. Hill (Eds.), *How and why are some therapists better than others? Understanding therapist effects* (pp. 37–54). American Psychological Association. <http://www.jstor.org/stable/j.ctv1chs4fx.7>
- Wang, P. S., Aguilar-Gaxiola, S., Alonso, J., Angermeyer, M. C., Borges, G., Bromet, E. J., Bruffaerts, R., de Girolamo, G., de Graaf, R., Gureje, O., Haro, J. M., Karam, E. G., Kessler, R. C., Kovess, V., Lane, M. C., Lee, S., Levinson, D., Ono, Y., Petukhova, M., . . . Wells, J. E. (2007). Use of mental health services for anxiety, mood, and substance disorders in 17 countries in the WHO world mental health surveys. *Lancet, 370*(9590), 841–850. [https://doi.org/10.1016/s0140-6736\(07\)61414-7](https://doi.org/10.1016/s0140-6736(07)61414-7)
- Wenzer, J. (2018). Egen erfarenhet som unikt arbetsverktyg: Utvärdering av projektet PEER support inom psykiatri i Västra Götalandsregionen. Göteborgs Universitet. https://www.nsph.se/wp-content/uploads/2018/03/SLUTRAPPORT_PEER-SUPPORT.pdf
- White, S., Foster, R., Marks, J., Morshead, R., Goldsmith, L., Barlow, S., Sin, J., & Gillard, S. (2020). The effectiveness of one-to-one peer support in mental health services: A systematic review and meta-analysis. *BMC Psychiatry, 20*(1), 534. <https://doi.org/10.1186/s12888-020-02923-3>
- Wicksell, R. K., Renöfält, J., Olsson, G. L., Bond, F. W., & Melin, L. (2008). Avoidance and cognitive fusion – central components in pain related disability? Development and preliminary validation of the Psychological Inflexibility in Pain Scale (PIPS). *European Journal of Pain, 12*(4), 491–500. <https://doi.org/10.1016/j.ejpain.2007.08.003>
- Williams, R., Farquharson, L., Palmer, L., Bassett, P., Clarke, J., Clark, D. M., & Crawford, M. J. (2016). Patient preference in psychological treatment and associations with self-reported outcome: national cross-sectional survey in England and Wales. *BMC Psychiatry, 16*(1), 4. <https://doi.org/10.1186/s12888-015-0702-8>
- Windle, E., Tee, H., Sabitova, A., Jovanovic, N., Priebe, S., & Carr, C. (2020). Association of patient treatment preference with dropout and clinical outcomes in adult psychosocial mental health interventions: A systematic review and meta-analysis. *JAMA Psychiatry, 77*(3), 294–302. <https://doi.org/10.1001/jamapsychiatry.2019.3750>
- World Health Organization. (2019). *International statistical classification of diseases and related health problems* (10th ed.). <https://icd.who.int/browse10/2019/en>

REFERENCES

- World Health Organization and the United Nations Children's Fund (UNICEF). (2018). *A vision for primary health care in the 21st century: Towards universal health coverage and the Sustainable Development Goals*. <https://apps.who.int/iris/bitstream/handle/10665/328065/WHO-HIS-SDS-2018.15-eng.pdf?sequence=1&isAllowed=y>
- Wowra, S. A., & McCarter, R. (1999). Validation of the empowerment scale with an outpatient mental health population. *Psychiatric Services, 50*(7), 959–961. <https://doi.org/10.1176/ps.50.7.959>
- Zagorscak, P., Heinrich, M., Schulze, J., Böttcher, J., & Knaevelsrud, C. (2020). Factors contributing to symptom change in standardized and individualized internet-based interventions for depression: A randomized-controlled trial. *Psychotherapy (Chic), 57*(2), 237–251. <https://doi.org/10.1037/pst0000276>

Appendix I

Supplementary material for Study II: Effects of patient-driven ICBT for anxiety in routine primary care and the relation between increased experience of empowerment and outcome: A randomized controlled trial

Analysis

An additional mediation analysis with bootstrapping was performed using PROCESS (Hayes, 2013) to investigate the mediation of empowerment scores measured post-treatment for the effect of treatment condition on changes in anxiety symptoms between pre- and post-treatment.

Results from the mediation model using PROCESS (Hayes, 2013) showed that the effect of the treatment condition on changes in anxiety symptoms from pre- to post-treatment was significantly mediated by empowerment scored at post-treatment, when controlling for empowerment scores at pre-assessment, with an alpha-level set at $p=.05$. The effect size of the mediator was .27, indicating that 27% of the proportion in the outcome was accounted for by changes in empowerment from pre- to post-treatment. The regression coefficient (a^1) between treatment condition and empowerment scored at post-assessment was -4.57 and statistically significant. The regression coefficient between empowerment scored at post-assessment and changes in anxiety between pre- to post-treatment (b^1) was $-.30$ and statistically significant. The direct effect of treatment condition on changes in anxiety symptoms between pre- and post-treatment (c^1) had a regression coefficient of 3.61 (.53)(6.69) and was statistically significant. The indirect effect of empowerment scored at post-assessment on changes in anxiety symptoms between pre- and post-treatment had a regression coefficient 1.36 (.009)(3.53) and was statistically significant.

Discussion

In line with perceptions of influence over the treatment, this study also aimed to explore the mechanism of empowerment in ACT-influenced internet-delivered CBT in routine primary care. Results from the main analysis showed a significant time effect for empowerment between pre-assessment and 3-month follow-up, but no significant interaction effect between group and time was observed. However, by the end of the treatment as well as by the 3-month follow-up, a significant difference was found between groups, where the patient-driven group experienced a higher degree of empowerment on both occasions. At the 3-month follow-up, a large between-group effect size based on

observed values was found ($d=0.86$). Results furthermore showed a significant medium negative association between changes in anxiety symptoms and changes in empowerment between start and end of treatment, indicating that participants whose anxiety symptoms had decreased the most also had improved the most regarding feelings of empowerment. An explorative mediational analysis showed that empowerment measured at post-treatment mediated the impact of patient-driven ICBT vs. standardized ICBT on changes in symptoms of anxiety between pre- and post-treatment, when controlling for empowerment scored at pre-treatment assessment. However, no firm conclusions should be drawn from this analysis because of its explorative nature. To establish evidence for a mediating effect, it is essential to demonstrate temporal associations – indicating that the change in the mediator precedes the change in the outcome – a dose-response relationship between the mediator and the outcome, experimental manipulation of the hypothesized mediator, and the provision of a theoretical rationale explaining how and why the mediator contributes to the observed change (Cuijpers, Reijnders, & Huibers, 2019). How and where mediation is tested should ideally be based on when and how the treatment can conceivably affect the mediator, as well as when and how the mediator is thought to affect outcomes. Considering the temporal association, it could be argued that it would have been preferable to use empowerment scored at mid-treatment as a mediator variable in our analysis, to be able to show that feelings of empowerment during treatment occurred before changes in anxiety symptoms. However, the mid-treatment assessment suffered from a significant number of missing data points (almost 50%), thus we used the post-treatment assessment in the mediational analysis, while statistically controlling for the pre-assessment scores to obtain a “change score” in feelings of empowerment. This seemed theoretically motivated in that we had no clear theory on when change in empowerment would take place, and feelings of empowerment may well occur later in treatment, as a result of behavioral changes due to treatment, for example, value-based living and exposing oneself to situations previously avoided.

Another consideration is that we used the raw scores of changes between pre- and post-assessment scores for anxiety as the outcome in our mediation analysis. However, another approach for obtaining a “change score” of anxiety could be to use the post-scores of anxiety symptoms as the outcome variable, statistically controlling for the pre-assessment anxiety scores. This could avoid problems with regression to the mean, which can occur when using the raw scores for change between pre- and post-measurement points as was done in this analysis.

In sum, the findings together may give indicative support for the hypothesis that the patient-driven intervention, letting the patient choose different

APPENDIX

elements in the treatment, targeted empowerment strongly enough to lead to change in outcome by the end of the treatment. Empowerment, moreover, seems to be an important process in treatment that correlates with anxiety symptoms.