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Attitudes to evidence-based interventions and routine outcome measures in mental health professionals

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A dissertation for the degree of Philosophiae Doctor – January 2019

UNIVERSITY OF TROMSØ

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Acknowledgements

Writing this note of thanks invokes feelings of sincere gratitude to all of you that have contributed in different ways to the work presented here, but also the shivering sensations of both nervousness and pleasant anticipation reflecting on the fact that all these years of working on this project have come to an end and that a new era is beginning.

Firstly, I would like to express my sincere gratitude to my main supervisor, Ingunn Skre, for your valuable guidance in every phase of this work. You have always been supporting and encouraging, and I will be forever grateful for your continuous belief in me.

I would also like to sincerely thank my two co-supervisors, Oddgeir Friborg and Kamilla Rognmo. Oddgeir, your detailed level of statistical knowledge amazes me. Thank you for all of your helpful and constructive feedback and contributions. Kamilla, your knowledge, wisdom and kindness leave me with the deepest respect for you. Thank you for all the discussions, contributions and support. Since our first day at the Department of Psychology you have been an appreciated colleague of mine, both academically and personally. I sincerely hope for both you`re continued friendship and future opportunities for academic collaboration.

In addition to my supervisors, I would like to express my sincere gratitude to the Norwegian Psychological Association (NPF) and the Norwegian Nurses Organization, the professional group for nurses in mental health and substance abuse (SPOR), for kindly providing access to their members and for their assistance with the data collection. I would like to also extend a special thanks to all the members of these organizations who took their time to respond to our surveys and who shared their opinions and thoughts. Thank you for making this work possible. I would also like to thank my two co-authors, Elisa M. Torres and Gregory A. Aarons, for valuable collaboration.

A special expression of gratefulness goes to the Department of Psychology (IPS) at UIT – The Arctic University of Norway and to the Division of Mental Health and Substance Abuse at the

University Hospital of North Norway (UNN), particularly Geir-Øyvind Stensland, Vemund Nordnes Myrbakk and Didrik Kilvær. This project was embedded at these two locations, within the framework of the Norwegian project for dual competence in psychology. Although the hospital experienced extensive organizational restructuring, I am grateful for their continued support while completing my clinical specialist degree. In this regard, I would also like to thank the leadership, colleagues and patients at Åsgård, UNN, for the opportunity to practice, learn and develop as a clinical psychologist.

To all of my colleagues and friends at IPS, I have really enjoyed working with you. There have been many cups of coffee, laughs and talks that I have appreciated so much. Karen, Marta, Kamilla, Connie, Thomas, and all the rest of you – you have a special place in my heart. I would also like to thank Catharina Elisabeth Arfwedson Wang, the leader of my clinical psychology research group at IPS/UIT, for all your kindness and support.

To my new workplace, RKBU Nord, to Monica Martinussen and all my new colleagues, thank you for being so welcoming and for generously providing me the space to complete my Ph.D.

Last, but not least, a special thank you to my family – my father, brother and sister-in-law. I love you all. Christer, meeting you made the puzzle complete. Meeting you also gave me an extended family, which I appreciate so much, especially Benedicte and Jonas, who came into my life giving me a chance to love even more and who are wonderful siblings to my two girls. Christer, you challenge me, you respect me, you are my rock, you make the best home-brewed beer ever. You provide the kind of security that makes me dare to do the things I need or want to do, even if it is scary. Maiken and Mina – you are the lights of my life. No one has taught me more than you two have. I love you and I always will ♥♥.

Summary

There is a major discrepancy between the amount of resources spent to develop and apply evidence-based psychological treatment programmes and interventions in mental health care and the extent to which these interventions are used in real-life mental health care service settings. This is a major impetus for the field of implementation science, which strives for a deeper understanding of the factors and strategies that determine the success or failure of the implementation of "evidence to practice" in health care organisations.

This thesis explores factors that might influence the implementation of evidence-based interventions in routine mental health care, including the specific intervention of routine outcome monitoring and feedback. The thesis has a special focus on mental health professionals' attitudes toward adopting evidence-based interventions, measurement issues as well as the relationship between professionals' attitudes and organizational factors. The thesis builds upon data collected through two different online survey studies in which members of the Norwegian Psychological Association and the Norwegian Nurses Organization, the professional group for nurses working in mental health and substance abuse, were invited to participate. The three papers described in this thesis provide us with implementation instruments that can be used both for research and applied purposes. Furthermore, major results and implications of our studies include the need to take into consideration that professionals exhibit different levels of experience, perspectives, needs and values that are important to them, which again may have implications for the choice and design of training efforts and organizational support that will most efficiently lead to successful adoption and sustainability of an implementation initiative.

List of papers

1. Rye, M., Torres, E. M., Friborg, O., Skre, I., & Aarons, G. A. (2017). The Evidence-based Practice Attitude Scale- 36 (EBPAS-36): a brief and pragmatic measure of attitudes to evidence-based practice validated in US and Norwegian samples. *Implementation Science,* 12(44). doi: 10.1186/s13012-017-0573-0.

2. Rye, M., Friborg, O., & Skre, I. (2019). Attitudes of mental health providers towards adoption of evidence-based interventions: relationship to workplace, staff roles and social and psychological factors at work. *BMC Health Service Research,* 19:110. doi: 10.1186/s12913-019-3933-4.

3. Rye, M., Rognmo, K., Aarons, G. A., & Skre, I. Attitudes to the use of routine outcome monitoring of psychological therapies among mental health providers: The EBPAS-ROM. Manuscript submitted to Administration and Policy in Mental Health and Mental Health Services Research, October 2018, under revision.

List of abbreviations

APA	American Psychology Association
CFI	Comparative fit indices
CFA	Confirmatory factor analysis
EBI	Evidence-based interventions
EBP	Evidence-based practice
EBPAS	Evidence-based practice attitude scale
EM	Expectation-maximization method
FIML	Full information maximum likelihood procedure
MLR	Robust standard errors
NPF	Norwegian Psychological Association
PCA	Principal component analysis
RMSEA	Root mean square error of approximation
SPOR	Norwegian Nurses Organization, the professional group for nurses working in mental health and substance abuse
SRMR	Standardized root mean error

1. Introduction

Since the first steps of modern clinical psychology as a separate science, the field has exploded with regard to both the amount of psychotherapy research available and the numerous treatment approaches, interventions and initiatives developed (Lambert, 2013). Tremendous amounts of resources are allocated to the development and application of evidence-based treatment programmes and interventions. However, health interventions that show strong empirical support are infrequently implemented in real-life clinical service settings (Drake et al., 2001; McHugh & Barlow, 2010; Satcher, 2000), and their dissemination and implementation may take decades to complete and often fail to cause the expected change in practice (Balas & Boren, 2000; Brownson, Kreuter, Arrington, & True, 2006; Haines, Kuruvilla, & Borchert, 2004). The complicated relationship between clinical science and clinical practice has widely been referred to as the "science-practice" gap (e.g., Lambert, 2013). While the policy statement on evidence-based psychological practice can be seen as an attempt to bridge this gap (Kazdin, 2008; APA Presidential Task Force on Evidence-Based Practice, 2006; Norsk Psykologforening, 2007), the same movement has caused substantial, and at times quite aggressive, debates (Wampold & Imel, 2015). A promising direction in the psychotherapy field involves the development of practice-based evidence, especially in the use of feedback to inform client progress throughout treatment (Barkham, Hardy, & Mellor-Clark, 2010). This movement, described by some as revolutionary (Miller, Hubble, Chow, & Seidel, 2015), highlights the collaboration and mutual engagement between science and practice (Castonguay, 2013) and, thus, having the potential to bridge the science-practice gap (Newnham & Page, 2010). However, the movement has also been met with concerns, including the lack of, or barriers to, implementation (Boswell, Kraus, Miller, & Lambert, 2015; Goldman & Seybolt, 2015). As Rønnestad (2008) notes, to best serve the *continued* debates regarding evidence-based practice (and here, we add practice-based evidence),

clinicians, researchers and others need to understand the concept and background of evidence-based practice.

As implementation science developed from the acknowledgement of barriers in translating evidence to practice (Dearing, Kee, & Peng, 2018), I argue that the historical perspectives of psychotherapy and psychotherapy research constitute a foundation for both the understanding of the implementation science field and the interpretations and implications of the work in this thesis. Thus, this thesis will first examine the broad lines in the history of psychotherapy and psychotherapy research. The thesis focuses on the influential concepts of "evidence-based practice" and "practice-based evidence", in combination with a view of the historical developments and changes in psychotherapy and psychotherapy research following various individuals and events. After examining the history of this field up to the present, the thesis will move to the field of implementation science, within which this Ph.D. project as a whole is embedded. This attempt to cover the history, the current situation and the future directions of these extensive fields requires a statement of the limitations of the coverage. Given the focus on modern clinical psychology, much of the history of the understanding and treatment of mental illnesses will not be covered, and an overview of the various psychotherapeutic orientations and evidence-based interventions will not be provided. It will also not be possible to present a *full* comprehensive picture of all important aspects of the broad discussions addressed.

1.1 History of clinical psychology and psychotherapy research

The origins of psychotherapy are often associated with Freud and psychoanalysis, which, from the end of the 19th century to approximately 1960, was the dominant orientation in the field of clinical psychology. However, the origins of psychotherapy can also be traced farther back in time. For instance, an important shift in the treatment of mental illness followed the

Enlightenment era and a growing compassion for human problems that had previously been viewed as getting what one deserved, punishment for sinful behaviour or demonic possession (Cautin, 2011). The French physician Philippe Pinel (1745-1826) was one of the advocates for the humane treatment of people with mental illnesses. As a director of the Bicêtre and La Salpêtrière Asylums, he gradually stopped inhumane activities such as chaining and bloodletting. After Pinel, the La Salpêtrière Asylum became a research centre under the directorship of neurologist Jean-Martin Charcot (1825-1893), who studied hysteria and hypnosis as a treatment for mental disorders and was one of Freud`s inspirators.

The first psychotherapists were not embraced by the scientific community and the then-dominant paradigms of the medical field and somatic models of illnesses (Cautin, 2011). The psychoanalytic theories of Sigmund Freud (1856-1939) and Alfred Adler (1870-1937) also met resistance from influential philosophers of science, such as Karl Popper (1902-1994), who argued that Freud's theories lost their empirical character as they were not falsifiable, though being a method of pseudo-science (Dienes, 2008; Walsh, Teo, & Baydala, 2014). To view this from a historical perspective, in the 19th century, the natural sciences were emphasized (Walsh et al., 2014). The principles of the natural sciences were applied to humans to seek causes of behaviour through observations, mathematical information, sensory experiences and experimentation as a source of knowledge. Additionally, tension existed between those who wanted psychology to be a pure natural science and those who wanted psychological principles to be applied to practical matters. However, in the following years and after World War II, the practice of psychotherapy grew, as did its research status and recognition. Other approaches to psychotherapy appeared, including Carl Rogers' client-centred therapy and learning-based approaches with a greater emphasis than previous orientations on the importance of formally evaluating the effects of psychotherapy (as described, for instance, by Lambert, 2013). The challenge of managing returning war veterans

with psychological problems that are now known as posttraumatic stress disorder (PTSD) meant that clinical psychologists began to compete with psychiatrists. Consequently, a need for standards for the psychological training and practice of professional clinical psychologists who practised psychotherapy emerged. This need was met by the educational Boulder model in 1949 (subsequently referred to as the scientist-practitioner model), which stated that education in clinical psychology should have its foundation in research and scientific practice (Baker & Benjamin, 2000). The Boulder model has also met criticism due, for instance, to being excessively rooted in a medical orientation (Albee, 2000; Frank, 1984).

Since World War II, developments in psychotherapy practice and research have been influenced by both social forces and policies (for instance, pressure to reduce treatment length and make affordable treatments available to a large segment of the population), theoretical battles about the causes and treatments of psychopathology, different psychological orientations and the emergence of new statistical techniques and methodological approaches, such as meta-analysis (DeLeon, Kenkel, Garcia-Shelton, & Vandenbos, 2011; Lambert, 2013; Rønnestad, 2008). The next section considers a fundamental influence: the policy statement on evidence-based practice.

1.2 Policy statement on evidence-based psychological practice

The need to demonstrate the efficacy of psychotherapy in general and various treatments specifically shaped the further development of psychotherapy. Developments in research designs came to play an important role, allowing studies to examine different variations in a "general effect question", attempting to answer the question of whether psychotherapy is effective. In the 1950s-1960s, psychologist Hans Eysenck (1916-1997) published a series of influential books and articles and claimed that the rate of recovery of patients receiving psychotherapy was equal to the rate of spontaneous remission, a statement that led to much

debate (see for instance Wampold & Imel, 2015, for a more thorough discussion). In 1977, Smith and Glass published the first meta-analysis and showed that psychotherapy was indeed efficacious (Smith & Glass, 1977). The earliest research attempts encountered both methodological problems (for instance, how to address change occurring naturally over time) and ethical problems (for instance, questions concerning the withholding of treatment for control groups). Without a design involving the random assignment of patients to treatment and non-treatment comparison groups, it was difficult to demonstrate the effect of therapy through research. Hence, the use of randomized controlled trials (RCTs) was soon considered the "gold standard", making it possible to establish that specific psychotherapeutic treatments were effective for patients with specific diagnoses. A natural consequence was that treatments had to be standardized; for instance, treatment manuals were developed, after which the standardized treatments could be tested and compared to ensure that therapists correctly delivered the specific ingredients of the treatment. In 1995, the American Psychology Association (APA) division 12 (Clinical Psychology) presented its criteria for empirically validated therapies with inspiration from the medical community and an emphasis on RCTs. If specific criteria were satisfied by a treatment, the treatment was included on the list. While the intentions were probably good (i.e., identifying specific treatments effective for specific disorders and documenting that psychotherapy works equally well or better than pharmacological treatments), intense confrontations and debates between proponents of different theoretical orientations followed (e.g., Lambert, 2013; Wampold & Imel, 2015). The list was dominated by behavioural and cognitive-behavioural treatments, at the expense of psychodynamic and humanistic approaches, probably reflecting that the former were easier to manualize. The list was found by many to be overly rigid, and the gap between research and clinical practice widened.

In 2005, the APA formulated the "Policy statement on evidence-based practice in psychology" (APA Presidential Task Force on Evidence-Based Practice, 2006), defining evidence-based practice as follows:

> *the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences*.

Throughout the rest of this thesis, the abbreviations EBI (evidence-based treatments and interventions) and EBP (evidence-based practice) will be used. While EBI refers to empirically supported or evidence-based treatments, interventions and techniques (e.g., cognitive therapy for depression), the concept of EBP is much broader. As the above definition implies, the policy statement highlights the psychologist's role in integrating evidence that is relevant for a particular client and his or her own experiences and suggests that the "best research practice" is the practice best suited for the problem at hand. The statement highlights the need for variety in research designs and approaches, the role of clinical expertise, and knowledge about the individual client and context. Emphasizing variety in research designs also implies that RCTs cannot be viewed as the only means towards valid knowledge.

Over the last decade, EBP (and EBI) has gained increasing influence in psychology and allied disciplines (Greenhalgh, Howick, & Maskrey, 2014; Lambert, 2013). Although the premises of EBP are widely endorsed, its integration into routine mental health care has raised considerable concern, and the debates have continued (Greenhalgh et al., 2014; Kazdin, 2008). One key concern is that treatment research does not reflect the realities of clinical practice, in which patients are more troubled, complex and difficult to treat than patients in psychotherapy research trials (Weisz, Jensen-Doss, & Hawley, 2005: Weisz, 2014). Another central concern involves the term "best research evidence", which is associated with debates about what qualifies as evidence and how evidence can be integrated in clinical practice (e.g.,

Oddli, 2013). The EBP debates have also characterized the debates in Norwegian academic and clinical communities (Høstmælingen, 2010) and are frequently mentioned in both popular media and professional journals. In the last few years, much of the debate in the Norwegian mental health context has involved the development and implementation of a project involving pathways for the assessment and treatment of mental health and addiction problems by the Ministry of Health and Care Services through the Norwegian Directory of Health (The Norwegian Directorate of Health, 2018). This issue has led to considerable debate and engaged a range of stakeholders, including user groups, mental health care providers, researchers, the general public and policy makers (e.g., Alfarnes, 2015; Halvorsen, 2018; Hofgaard, 2015; Høie, 2015; Tessand, 2015). Critical voices have raised concerns regarding the standardization of the mental health care services provided and have criticized the use of a system originally developed in the somatic context. They have also highlighted the need to individualize treatments to the often-complex needs of the individual clients seeking help for mental health issues. Taken together, this emphasize the continued need to adhere to the research aims and fundamental issues that the work in this thesis considers.

1.3 Common factors – and the process of psychotherapy

The historical focus on establishing the effect of psychotherapy continues to have a major impact on the mental health field (for discussions, see for instance Lambert, 2013; Miller et al., 2015; Wampold & Imel, 2015). This influence involves the development of practice guidelines as well as governmental funding that advocates for and shapes clinical practice so that it is evidence-based (Miller, 2012). As early as the 1930s, however, the psychologist Saul Rosenzweig (1907-2004) claimed that attempts to establish which treatments worked best were misguided. Rosenzweig used the metaphor “at last the Dodo bird said, ‘everybody has won and all must have prizes’” to refer to the competition between various therapies.

Rosenzweig noted that despite the differences among various therapies, the outcomes were generally similar (Rosenzweig, 1936). The equivalence of the benefits of psychotherapies has subsequently been referred to as the dodo-bird effect, implying that all methods of psychotherapy, *when competently used*, are equally successful (Duncan, 2002; Wampold & Imel, 2015). Today, the focus has moved beyond (or at least expanded from) the identification of diagnosis-specific treatments to a larger focus on identifying the factors common across all psychotherapies. This shift rests substantially on research findings that show that different treatment approaches indeed have similar effects (Duncan, Miller, Wampold, & Hubble, 2010; Stiles, Barkham, Twigg, Mellor-Clark, & Cooper, 2006; Wampold & Imel, 2015). While Rosenzweig talked about "unrecognized factors", we now talk about the *common factors* that include aspects of therapy that are common to all, such as client factors, therapeutic relationship factors, hopes and expectations (Duncan, 2002; Lambert, 2013; Norcross, 2011). Closely aligned are attempts to describe the processes of psychotherapy, including what actually happens in routine therapy sessions and how these events lead patients to change. This focus calls for research on both the *process* (mechanisms of change) and *outcome* of psychotherapy (Castonguay, 2013; Wampold & Imel, 2015), concerning factors that are common both across psychotherapies and across theoretical models (Crits-Christoph, Gibbons, & Mukherjee, 2013). Following, the next section introduces the practice-based evidence paradigm, aiming to further expand the psychotherapeutic knowledge base and improve clinical practice grounded within the context of everyday routine practice (Barkham et al., 2010).

1.4 Moving towards practice-based evidence and routine outcome monitoring

While it is well established today that psychotherapy works, it is also established that it does not work for everyone and that some people deteriorate when they are in therapy (Lambert,

2013). Striving for better outcomes and reaching those individuals who do not benefit from therapy are considered some of the most important tasks for both current and future psychotherapy research (Castonguay, 2013; Lambert, 2010; Prescott, Maeschalck, & Miller, 2017). A growing and influential effort to work for better outcomes and, at the same time, to bridge the widely noted gap between science and clinical practice, involves the use of routine outcome monitoring (ROM) (e.g., Lambert, 2010; Prescott et al., 2017). ROM, as a major part of practice-based evidence, involves the systematic evaluation of patient progress throughout the course of treatment using standardized outcome measures to receive client feedback about mental health status and treatment outcomes, as an integral part of the clinical service provided. According to Castonguay (2013), ROM involves two features with special importance for future psychotherapy research: being conducted in naturalistic settings and being based on standardized measurement systems used as part of routine clinical practice while allowing clinicians to take an active part in research by using data from their own clinical practice. Among the first major proponents of the use of outcome monitoring and feedback was the work by Lambert and colleagues (e.g., Lambert, 2010). The finding that clinicians are not effective in predicting which patients would or would not benefit from therapy (Hannan et al., 2005), brought further attention to ROM. Since then, evidence to support the use of ROM has been growing, and ROM has been shown to improve client outcomes in numerous studies, especially for patients who are off-track or not responding to treatment as expected (Amble, Gude, Stubdal, Andersen, & Wampold, 2015; Bickman et al., 2016; Bickman, Kelley, Breda, de Andrade, & Riemer, 2011; Brattland et al., 2018; Carlier et al., 2012; De Jong et al., 2014; Lambert, 2007; Lambert et al., 2001; Shimokawa, Lambert, & Smart, 2010; Simon, Lambert, Harris, Busath, & Vazquez, 2012; Wampold, 2015). ROM has also been attributed to increase user involvement in mental health care, as the client is the one providing the feedback on their own progress and experiences in therapy (Ulvestad,

Henriksen, Tuseth, & Fjeldstad, 2007). Provided that the feedback is used to inform practice, ROM can, for instance, contribute to the clients' participation in the choice of treatment, how the treatment is applied, as well as whether there is a need to make changes or continue on the therapeutic path one has started. Technological advances have moved the use of ROM from a paper-and-pencil format to electronic administration and the use of apps and mobile devices. This allows for efficient tracking and feedback in real time (Boswell et al., 2015), systems for collecting routine practice data, and insights into the process and patterns of individual changes, which can be used by the client, as well as for therapeutic and organizational development and the development of the psychotherapeutic knowledge base (Barkham et al., 2010). Numerous measures and systems currently exist for collecting, using and interpreting outcome measures over the course of therapy, including the Outcome Questionnaire System (OQ-System) (Lambert, 2015), the Partners for Change Outcome Management System (PCOMS) (Duncan & Reese, 2015), the Clinical Outcome in Routine Evaluation (CORE) system (Barkham et al., 2001), the Systemic Therapy Inventory of Change (STIC) (Pinsof et al., 2009) and the Treatment Outcome Package (TOP) (Kraus, Seligman, & Jordan, 2005). This thesis will not take on the task of describing the different systems in detail. However, drawing parallels with psychotherapy research per se, Wampold (2015) notes that an important aim is to the search for *efficacious components* in the use of ROM, rather than which ROM systems work best.

Concerns around ROM have also been raised, highlighting challenges that remain for the application of ROM to reach its full potential, including experienced clinical utility, professional reluctance, administration and costs (Boswell et al., 2015; Hatfield & Ogles, 2004; Ionita, Fitzpatrick, Tomaro, Chen, & Overington, 2016). Additionally, despite decades of literature supporting the use of ROM, the *actual* use of ROM in routine clinical settings remains low (Goldman & Seybolt, 2015), and a recent Cochrane review calls for *more*

research to support its use (Kendrick et al., 2016). This implies that more knowledge regarding both the use and implementation of ROM as an integral part of the clinical service provided is needed.

In summary, a wealth of psychotherapeutic interventions has proven effective in treating mental illnesses. Furthermore, process research has shown that these interventions share several *common factors*, making the theoretical battles over "what works best" less important. One can assume that all of these interventions work well when competently used. Additionally, the promising development of practice-based research and the use of ROM are aimed at further improving patient outcomes, especially to help those patients who may otherwise deteriorate or perhaps drop out of therapy, as well as to gain insight into the process and outcomes of psychotherapy. This can be argued to be a promising picture. However, there is a tremendous gap between the resources spent developing EBIs (including ROM systems) and the extent to which they are used in routine clinical practice. Hence, this picture is more problematic and calls upon the quite new and rapidly growing field of implementation science.

1.5 Rise of implementation science

History shows that several years may pass from the moment a discovery is made until that discovery is put into practice. With regard to the current situation in the mental health field, the extensive and rapidly growing psychotherapy research literature presents abundant information and knowledge for mental health institutions and different stakeholders to try to get a grasp on. To add to this complexity, implementation efforts in health care service settings are particularly exposed to challenges, as they are dependent on both the actions of every individual stakeholder and organizational influences within the complex context of hospital or heath care delivery environments (Aarons, Hurlburt, & Horwitz, 2011).

Additionally, the knowledge base is constantly changing (Lambert, 2013). As we will see, the issue of implementation and its research is quite complicated.

1.6 Implementation frameworks

Implementation research has been defined as "the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice", including the study of influences of health care professionals and organisational behaviour (Eccles & Mittman, 2006). The aim is to improve the quality and effectiveness of the health care services provided. A growing number of theories, models and frameworks describe the implementation of EBIs in several stages and associated with complex multilevel challenges (Aarons, 2004, 2005; Glisson et al., 2008; Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004; Nilsen, 2015). One example is the Consolidated Framework for Implementation Research (CFIR) framework (Damschroder et al., 2009). The CFIR framework outlines five major domains that guide implementation science efforts; the intervention characteristics, the outer setting, the inner setting, the characteristics of individuals involved and the process of implementation; each with a given number of subsumed constructs. For instance, the *inner setting* constructs include the organizational culture and climate, learning climate, leadership engagement and availability of resources, while the *characteristics of individuals* include knowledge and beliefs and personal attributes. Another example is the Exploration Preparation Implementation and Sustainment (EPIS) framework, in which implementation processes are divided into exploration, preparation, implementation and sustainment phases (Aarons et al., 2011). In all of these phases, the characteristics of the intervention to be implemented, patients, health care professionals, organizations and policies of health authorities involve factors that are important for successful implementation. Understanding such factors, often referred to in the

implementation literature as potential barriers and facilitators, may aid in the process of implementation, as these factors may both slow down and enhance implementation initiatives.

1.6.1 Adoption phase of implementation

As noted by Wisdom, Chor, Hoagwood, and Horwitz (2014), there are good reasons to focus both research and implementation efforts on adoption or the earliest phases of implementation. Adoption refers to the complete or partial decision to proceed with the implementation of an innovation (Proctor et al., 2011) and has been outlined as a key outcome for implementation research (Proctor et al., 2011; Wisdom et al., 2014). Here, it is important that achieving the sustained implementation of an innovation is dependent on how the adoption process goes, as it has the potential to both impede implementation and lead to de-implementation. Wisdom et al. (2014) present four different adoption context levels consistent with the previously mentioned CFIR framework: the external system, organizational, innovation and individual context levels; each with associated adoption constructs (e.g., social climate) and mechanisms for change. The work described in this thesis focuses mainly on two of these levels; individual (e.g., attitudes, current practice, demographic factors) and organizational (e.g., leadership, social climate, organizational support) characteristics. The following sections elucidate important barriers to and facilitators of adoption for both EBI and ROM, delineated at the individual and organizational context levels, with a special emphasis on therapist attitudes. First, a brief overview of organizational structure and processes are provided, followed by some thoughts about the concept of attitudes in general and how they are to be measured.

1.7 Organizational structure and processes

Mental health services are conducted within various organizations, resulting in multiple issues to take into consideration when planning new initiatives. Aiming at understanding the structure of organizations, which again might have importance for planning strategies to achieve organizations goals, several perspectives have been developed. For instance, Woods and West (2010) discuss how organizational structure can be viewed in terms of being more mechanistic with top-down decision-making, regulations and control; with a more flat hierarchy, involving frontline personal in decision making and encouraging communication; or with a team-based structure emphasizing communication and collaboration within and between teams. When it comes to the implementation literature on organizational processes, important processes to adhere to have, for instance, included leadership and leadership development, as well as organizational culture and organizational climate, each which might again have complex interactions with multiple factors (see, e.g., Aarons, Moullin, & Ehrhart, 2018, for a more thorough discussion). The complexity can, for instance, be seen in relation to how "good" leadership is dependent on the context of study (e.g., different cultures, large organizations, teams), and that development of leadership skills must therefore take into account the setting where one is to lead (Woods & West, 2010).

1.8. Attitudes and the measure of attitudes

Attitudes have been defined as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour" (Eagly & Chaiken, 1993, p. 1). Attitudes have affective aspects (e.g., "how do I feel about X?"), behavioural aspects (e.g., "how do I act concerning X"?) and cognitive aspects (e.g., "what do I think about X?"), and differ both in strength and valance (Maio, Haddock, & Verplanken, 2018). Although some attitudes have been described as relatively stable, studies have shown that attitudes are likely

to be temporarily constructed at the time that the evaluation is needed and to be sensitive to contextual influences, including ones mood and bodily state (Bohner & Wänke, 2002). As attitudes, like many other psychological phenomenon, are not directly observable, to measure them requires an aim for proper operationalization of the construct, the measurement of several aspects, and a solid theoretical foundation (Friborg, 2010). Direct or explicit measures of attitudes are one common method, asking people to report their evaluations on statements, with responses provided in numerical scales such as, for instance, Likert-scales. There are limitations to such measurement formats (see section 5.4.3) and one needs to take into consideration that multiple factors can be involved in people's evaluations. This includes people's interpretation of the questions or statements, the process of retrieving or constructing an evaluation, and the translation of ones evaluation to the response format provided (Bohner & Wänke, 2002). The relationship between attitudes and behaviour has received much research attention, with regard to *if, when,* and *how* attitudes predict behaviour (Maio et al., 2018). Although this thesis will not elaborate on these frameworks, several theoretical frameworks have been developed to describe the relationship between attitudes and behaviour, including the Theory of Planned Behavior (Ajzen, 1991), the Mode Model (Fazio, 1990), and theories regarding attitude change, such as the Cognitive Dissonance Theory (Festinger, 1957).

1.9 Barriers to and facilitators of EBI implementation

1.9.1 Roles of individual and organizational factors in the adoption of EBI

In the literature addressing barriers to and facilitators of the adoption of EBI, several themes emerge at the individual and organizational context levels. In a survey of 1630 psychotherapists, the most frequently mentioned barriers included training issues (e.g., a lack of time, high cost and insufficient training), health professionals' attitudes (e.g., thinking that

on-going practice is satisfactory, belief that treatment must be easy to integrate with existing therapeutic approaches) and contextual and institutional factors (e.g., lack of administrative support, extensive caseloads) (Cook, Schnurr, Biyanova, & Coyne, 2009). Practical barriers, for instance, in terms of insufficient time, costs and resources, have been found to be substantial barriers in several other studies as well (Dalheim, Harthug, Nilsen, & Nortvedt, 2012; Nelson, Steele, & Mize, 2006; Pagoto et al., 2007; Stewart, Stirman, & Chambless, 2012). When it comes to examples of facilitators, a mix method study conducted as part of a children's mental health services reform highlighted the positive value of on-going consultations during implementation, for instance, allowing health professionals to discuss experienced barriers, case examples, and adaptions, as well as share experiences with others (Barnett et al., 2017).

1.9.1.1 Therapists' attitudes towards adopting EBI

At the individual level, mental health professionals' attitudes are considered an important factor associated with the adoption and use of EBI (Greenhalgh et al., 2004; Wisdom et al., 2014) and have received increasing attention in the development of implementation science. Nevertheless, the literature points to a continued need to expand knowledge, for instance, with regard to its relationship with organizational factors (Aarons, Cafri, Lugo, & Sawitzky, 2012; Powell et al., 2017). Therapists' attitudes towards change and innovation may influence the initial process of deciding whether to try out new practices and, thus, the actual implementation process as well as the subsequent sustained use of an intervention (Aarons, 2004; Aarons et al., 2012). Studies have shown a mixed picture in which mental health professionals have differed considerably with respect to positivity and ambivalence towards EBI (Aarons, 2004; Aarons et al., 2012; Lilienfeld, Ritschel, Lynn, Cautin, & Latzman, 2013; Nelson et al., 2006; Pagoto et al., 2007; Stewart et al., 2012). Professional attitudes have also

been found to vary in relation to individual and demographic characteristics. For instance, higher educational status is associated with more favourable attitudes towards adopting EBI given its intuitive appeal (Aarons, 2004). Additionally, females have reported lower time and administrative burdens in learning EBI than males, and practitioners with lower educational levels have reported placing more value on organizational support for learning EBI than those with higher educational status (Aarons et al., 2012). At the same time, individual decisions to adopt an intervention are also influenced by and interact with several organizational factors, such as leadership, organizational norms and values, social climate and organizational support, as well as policies and system factors (Aarons, 2006; Aarons et al., 2011; Damschroder et al., 2009; Greenhalgh et al., 2004; Wisdom et al., 2014). For instance, Aarons (2006) found associations between transformational (i.e., charismatic, visionary) and transactional (i.e., inspirational, motivating) leadership styles and more positive attitudes by professionals towards adopting new evidence-based practices. Furthermore, a recent study by Powell et al. (2017) among child serving agencies that were part of an effort to increase the uptake of EBIs highlighted implementation climates, with high levels of educational support and proactive leadership being associated with more positive provider attitudes.

Although some studies have suggested that professionals have positive attitudes towards EBI, the same studies show that these professionals report limited use of EBI (Graham, Robertson, & Anderson, 2013; Snibsøer, 2012). For instance, a survey among Norwegian nurses working in the field of cancer treatment, although not conducted in the mental health field, indicated that respondents participating in a post-graduate degree programme in EBP had positive attitudes towards EBP, though they practised EBP-related activities to a lesser extent (Snibsøer, 2012). Additionally, the premises of "evidence" have been elucidated in several studies dealing with mental health professionals' attitudes. A review of survey studies on psychologists' attitudes (Lilienfeld et al., 2013) suggested several

principal sources of resistance, including therapists relying solely on intuitive judgement or clinical intuition to judge therapeutic efficacy, as well as mischaracterizations of the evidence-based concept (e.g., beliefs that evidence may only come from RCTs, beliefs that a specific treatment fits the needs of all patients equally well). Misunderstandings about the principles of EBP have also been discussed by others (Luebbe, Radcliffe, Callands, Green, & Thorn, 2007; Thyer & Pignotti, 2011). In a qualitative study by Stewart et al. (2012), concerns about research among interviewed psychologists included the belief that research is overly controlled (e.g., not generalizable, manualized treatment protocols that are too narrow and dogmatic) and that it overlooks the human and interpersonal component of therapy. The same study noted that clinicians were positive about knowing "what works", but they wanted to learn whether and how they could integrate and fit EBI or specific components of EBI into their existing practice and did not want to follow treatment manuals rigidly.

1.10 Barriers to and facilitators of ROM implementation

1.10.1 Roles of individual and organizational factors in the adoption of ROM

As for EBI, research interest on ROM has shifted to issues of implementation. As discussed above with regard to the general implementation literature, the subject of barriers may seem familiar. Hatfield and Ogles (2004) and Boswell et al. (2015) divided barriers into philosophical and practical barriers. While practical barriers include issues such as costs and financial burden (e.g., costs of systems, technological infrastructure), time, administration, training, supervision and turnover, barriers of the more philosophical type concern, for instance, the applicability and relevance of outcome measures, whether they manage to assess clinical change, and professionals` concerns.

1.10.1.1 Therapists' attitudes towards adopting ROM

Studies have suggested that therapists might be interested in using ROM, although they do not use ROM due to both practical and philosophical barriers (as described above). Issues described by professionals include fear about being evaluated (Norman, Dean, Hansford, & Ford, 2014), the need for clinical utility (Sharples et al., 2017), fear that ROM might interfere with forming a therapeutic alliance (Youn, Kraus, & Castonguay, 2012) and concerns about the intensions underlying the use of ROM, which may vary among clinicians and administrators (Boswell et al., 2015). Miller et al. (2015) went so far as to describe ROM as a revolution in psychotherapy practice but noted that it is in "danger of missing the point" if one does not consider the therapist's contribution. As pointed out by De Jong et al. (2014), not all therapists use the feedback they receive. The authors suggest that implementation efforts need to address therapist attitudes and their motivation and commitment for ROM, which may predict both the actual use of feedback and the rate of client progress. Understanding therapist-related factors is therefore of major importance.

1.11 Measurement issues in implementation science

A review by Chaudoir, Dugan, and Barr (2013) highlights two methodological barriers to implementation science efforts: a lack of agreement regarding constructs hypothesized to affect implementation success and the measures of these constructs. Closely aligned with this, Martinez, Lewis, and Weiner (2014) highlight the use of frameworks, theories and models as the most critical measurement issues in implementation science that potentially hinder the developing knowledge base. Additionally, Martinez et al. (2014) describe how theory and measurement must be seen in relation to each other, as theories define the content of and relationships among constructs, and the measurement of a construct may aid in modifying and

improving theory. Given the complex multilevel nature of implementation processes, it is unsurprising that measuring implementation constructs is challenging.

Psychometrically strong instruments that actually measure what they are intended to measure are necessary to draw conclusions and generalize findings from implementation research. Several reviews draw attention to the fact that many measures of implementation constructs exhibit weak psychometric properties (Chaudoir et al., 2013; Chor, Wisdom, Olin, Hoagwood, & Horwitz, 2015; Lewis et al., 2015). Weak psychometric properties have been highlighted as a critical measurement issue that can cast doubt on study findings and ultimately on the foundation of both implementation science and the search for implementation strategies that facilitate the spread of EBI into real-life clinical service settings (Lewis et al., 2015; Martinez et al., 2014). In a review by Chaudoir et al. (2013), criterion-related validity was reported for 48.5 % of the identified instruments, while in the review by Chor et al. (2015), only 52.5 % of measures aiming at the adoption level of implementation were reported to provide psychometrics at all. The Society for Implementation Research Collaboration (SIRC) Instrument Review Project (Lewis et al., 2018; Lewis et al., 2015) outlines limitations and gaps in the methodology and scope of existing instrument reviews, including those of Chaudoir et al. (2013) and Chor et al. (2015), and aims to provide a comprehensive review and open access repository of instruments that assess constructs relevant for implementation delineated in the CFIR and Implementation Outcomes Framework (Proctor et al., 2009). Constructs were here defined as "factors inside domains (characteristics of the intervention, characteristics of individuals involved in the implementation, outer settings, inner setting, process, implementation outcomes and client outcomes) that may predict, moderate, or mediate EBI dissemination and implementation, as well as implementation outcomes" (p. 3). The review by Lewis et al. (2015) identified more than 420 instruments covering 48 different implementation constructs. However, the

preliminary results of the SIRC project suggested that few of these instruments were psychometrically strong or had been developed through an adequately systematic approach (Lewis et al., 2015). One of the measures that *was* highlighted as psychometrically strong was the Evidence-Based Practice Attitude Scale (EBPAS), which the current thesis employs in its extended version (see section 3.3.2). As the literature and initiatives described above indicate, there is a continuing need to identify instruments with sound psychometric properties, which is an issue that has become a high priority in the field of implementation science (Lewis et al., 2015). Without such measures, further advances in the developing implementation knowledge base are impeded.

2. Research aims

Although the field of implementation science, aiming for better integration of evidence into routine health care settings, has grown, there is still much to learn. One of the main issues include the provider factor, professionals' attitudes towards adopting new interventions, the relationship between attitudes and organizational factors, and how these factors are to be measured. These issues are addressed by the present thesis through:

- Adaptions of shorter versions of a previously validated implementation instrument measuring professionals' attitudes toward adopting an EBI, and evaluation of their psychometric properties;
- Identification of provider demographic and organizational predictors of attitudes toward adopting EBI; and
- Exploration of how attitudinal domains relate to the reported use of standardized instruments as a means of treatment planning and evaluation, which was seen as central elements to the use of ROM.

2.1 Paper 1

In the first paper, we called for short, valid instruments for measuring factors that facilitate or hinder implementation efforts, specifically therapists' attitudes towards adopting EBIs. The Evidence-Based Practice Attitude Scale-50 (Aarons et al., 2012) was translated into Norwegian; the number of items was reduced in an iterative collaboration with the original US instrument developers; and the psychometric properties of the adapted version were examined in both our Norwegian sample and a US sample of mental health service providers.

2.2 Paper 2

In the second paper, we aimed to gain insight into factors that influence the adoption of EBI, specifically, potential differences between staff roles and positions as well as individual and organizational predictors of attitudes towards adopting EBIs, as measured with the adapted EBPAS-36 instrument.

2.3 Paper 3

In the third paper, we wanted to gain insight into mental health professionals' attitudes that influence the adoption of ROM through the adaption of the EBPAS-50 instrument and an exploration of how attitudinal domains relate to clinicians' current use of standardized instruments for treatment planning and evaluation.

3. Methods

3.1 Data material

The data for the present project were provided by two online surveys distributed via invitation emails from the Norwegian Psychological Association (NPF) and the Norwegian Nurses Organization, the professional group for nurses in mental health and substance abuse (SPOR). Survey 1, which explored therapist attitudes towards the adoption of EBI, was sent to half of the members of the NPF (psychologist sample 1, N = 3598) and to all of the members of the SPOR (nurse sample 1, n = 1436). Survey 2, which explored therapist attitudes towards the adoption of ROM, was sent to the other half of the members of the NPF (psychologist sample 2, n = 3654) and all of the members of SPOR (nurse sample 2, n = 1436). Both surveys were also announced on the Internet sites of these two organizations. The invitation emails provided information about the study and a web link that provided access to the corresponding survey. The data were collected through online SurveyMonkey software. Data for survey 1 were collected from May to October 2014, while data for survey 2 were collected from May to July 2014 for psychologist sample 2 and from February to March 2015 for nurse sample 1. One and two reminders were sent to nurse sample 1 and psychologist samples 1 and 2, respectively, for both surveys. All members of the sample populations had the opportunity to participate in random drawings for one iPad mini or two professional books, the Bergin and Garfield's Handbook of Psychotherapy and Behaviour Change (Lambert, 2013) and the Norwegian book Jobb kunnskapsbasert: en arbeidsbok (Nortvedt, Jamtvedt, Graverholt, Nordheim, & Reinar, 2012), as incentives for participation.

In addition, to address paper 1's aim of validating the EBPAS-36 in Norwegian and US samples, data from a sample of mental health service providers (N = 418) recruited from clinics providing mental health services in San Diego County, California, were included as described in paper 1.

3.2 Sample

For survey 1, a total of 856 psychologists and psychology students (24.0 % response rate for psychologist sample 1) and 191 nurses (13.3 % response rate for nurse sample 1) completed the survey (*N* = 1047). In paper 1, subjects who did not complete any of the EBPAS-50 items were excluded, as were those with missing data for entire subscales, >1 item on a 3-item scale or >2 items on a 4-item scale (N=209). Thus, the final sample for paper 1 included data from 838 Norwegian respondents as well as the 418 respondents from the US data material mentioned in the data material section. For paper 2, subjects who did not complete any of the EBPAS-36 items and those with missing data on all of the EBPAS-36 subscales were excluded (*n* = 192). The final sample (*N*=855) for paper 2 included 63 psychology students in clinical training (7.4 %), 671 licensed psychologists (78.5 %) and 121 nurses (14.2 %). Students were excluded from the sample for paper 2, as the focus in this paper was on experienced practitioners in work-related settings.

For survey 2, a total of 734 psychologists and psychology students (20.1 % response rate for psychologist sample 2) and 360 nurses (25.1 % for nurse sample 1) completed the survey (N = 1094). For paper 3, subjects who did not complete any of the 50 items from the EBPAS-50 ROM version were excluded, as were those with missing data for entire subscales, >1 item on a 3-item scale or >2 items on a 4-item scale (n = 300). Thus, the final sample for paper 3 included data from 794 respondents. Students and providers who did not work as clinicians were excluded in this case, given paper 3`s focus on practitioners as end-users in clinical service settings (n = 662).

3.3 Measures

3.3.1 Demographics

The demographic variables in *all* papers included gender, age, highest level of education, professional discipline and number of years working in substance abuse and/or mental health service. The age response categories were < 30 years, 31–40 years, 41–50 years, 51–60 years, and > 60 years. Level of education in the survey data included 14 categories for psychologist samples 1 and 2 and 5 categories for nurse sample 1. For the psychologist samples, the education categories included 1) accomplished cand. psychol. degree; 2-11) clinical specialist degrees (clinical psychology for adults, clinical psychology for children and youth, psychological habilitation, addiction/substance abuse, neuropsychology, family psychology, gerontopsychology, clinical psychotherapy, community psychology, organizational psychology); 12) Ph.D.; 13) other accomplished continued education; and 14) unfinished continued education. For the nurse sample, these categories included 1) bachelor's degree in nursing; 2) other continued education; 3) master's degree in nursing; 4) Ph.D.; and 5) unfinished continued education. For the analysis, education was recoded into 5 groups for psychologists: 1) initial cand. psychol degree; 2) both a Ph.D. and a clinical specialist degree; 2) Ph.D.; 3) clinical specialist degree; and 4) other continued education. For the nurses, education was recoded into 4 categories: 1) initial bachelor`s degree; 2) Ph.D.; 3) master's degree; and 4) other continued education. The professional disciplines included the categories student, psychologist and nurse. In addition, papers 2 and 3 both included the demographic variable of working as a clinician. Here, psychologists were asked to indicate whether they worked as clinicians or not, and nurses were asked to indicate whether they worked directly with patients. Paper 2 included the respondent's workplace. The surveys provided 19 alternatives for nurses and 15 for psychologists. An "other" category with the possibility of specifying one's own workplace in writing was also provided for respondents who did not

belong to any of the predefined categories. As the respondents had the opportunity to indicate multiple response categories, workplaces were manually recoded into the following categories: 1) outpatient units - adults; 2) outpatient units - children and youth; 3) outpatient unit – substance abuse; 4) inpatient unit >2 months; 5) inpatient unit <2 months; 6) combined research and/or educational position and clinical position; 7) research and/or education; 8) private practitioner with subsidies (including only psychologists with a clinical specialist degree working in private practice with operating subsidies from the Norwegian state, meaning that patients' cost of treatment exceeds the costs covered by public help); 9) private practitioners (both psychologists and nurses) without subsidies (see above); 10) governmental position (e.g., family counselling services); 11) municipal health and care services (e.g., prevention practice); and 12) other, including clinicians working in a combination of work settings, e.g., both inpatient and outpatient units. Paper 2 also included having leadership responsibilities or not.

For the US data material used for paper 1, the demographics provided were the participant's gender, age, ethnicity, level of education, primary discipline, years worked in mental health, and years worked in the current agency.

3.3.2 Evidence-based Practice Attitude Scale (EBPAS)

3.3.2.1 EBPAS general comments and translation procedure

The EBPAS 50-item version (see description below) constitutes one of the main measures applied, refined and discussed in the work described in the present thesis. For the Norwegian translation of the EBPAS-50, some translation adaptations were carried out with regard to the conceptual definitions for the written instructions of the instrument. These adaptations are also described in paper 1. The instructions of the original English version specified that "evidence-based practice" referred to any intervention supported by empirical research. As

this definition was considered narrow or misleading, the Norwegian instructions were limited to only EBIs (i.e., therapies, interventions, methods). This adaption was considered important, as it marked the major distinction between the more comprehensive concept of EBP and EBI, as outlined in section 1.2.

The Norwegian translation procedure for the EBPAS-50 is also described in paper 1, following the recommended guidelines for the cross-cultural translation, adaptation and validation of instruments (Sousa & Rojjanasrirat, 2011). The translation was conducted by MR in 2013 and then back-translated by a professional. Deviations between the original and the back-translated version were solved through a consensus discussion between MR and IS before the final Norwegian version was reviewed, revised and approved through an iterative process leading to consensus between MR and the original EBPAS-50 author, GAA. The measure was then given to a sample of clinicians and psychology and Ph.D. students, and their comments regarding readability were used to finalize the translation.

3.3.2.2 Evidence-Based Practice Attitude Scale-50 (EBPAS-50)

The EBPAS-50 is a 50-item instrument developed to assess mental health and social service providers' attitudes towards adopting EBP (Aarons et al., 2012). The 50 EBPAS items cover 12 subscales: appeal (four items), requirements (three items), openness (four items), divergence (four items), limitations (seven items), fit (seven items), monitoring (four items), balance (four items), burden (four items), job security (three items), organizational support (three items), and feedback (three items). The 12 subdomains are summed to a higher-order total scale score representing the respondent's global attitudes towards EBP. The items are formulated as statements, and responses are given on a 5-point Likert scale ranging from 0 ("not at all") to 4 ("to a very great extent"). To assess different perspectives and reduce response biases, 23 items belonging to five subscales (divergence, limitations, monitoring,

balance, and burden) are negatively framed. According to the EBPAS-50 scoring instructions, for the total score, these items are reverse scored, and the mean subscale scores are recomputed before a mean score is computed for the total EBPAS-50 item score. A higher total score indicates a more positive attitude towards the adoption of EBP.

3.3.3 The Nordic Questionnaire for Psychological and Social Factors at Work (QPS Nordic)

Organizational features and work climate were measured with the Nordic Questionnaire for Psychological and Social Factors at Work (QPS Nordic). This instrument was developed from organizational theories and consists of 129 items assessing psychological and social factors related to the work environment (Skogstad et al., 2001). The instrument is divided into three domains: work-related tasks, the social and organizational domain and the individual domain. For paper 2, six subscales (20 items) were used. These subscales were chosen following an informal discussion with a group of colleagues, where they provided feedback on which subscales they perceived as particularly relevant. Based on the information they provided, a consensus discussion between two authors (MR and IS) then led to the inclusion of the following subscales as most relevant for the aims of the study: 1) *quantitative job demands* (4 items), measuring the amount of work experienced and the time pressure; 2) *control over decisions* (5 items), measuring the influence on decisions regarding one's own workplace, workload, work methods and co-workers; 3) *support from colleagues* (2 items), asking for an assessment of social interaction when collegial assistance is needed; 4) *support from the nearest superior* (3 items), asking for an assessment of social interaction when a superior's assistance is needed; 5) *empowering leadership* (3 items), assessing encouragement from superiors in decision making, sharing personal opinions and the development of skills; and 6) *social climate* (3 items), measuring whether social climate at the workplace is

encouraging/supportive, distrustful/suspicious or relaxed/comfortable. A single item from the organizational domain was used: “What is the climate like in your work unit? Rigid and rule-based”. Responses were given on a 5-point Likert scale, ranging either from 1 (“very little or not at all”) to 5 (“very much”) or from 1 (“very seldom or never”) to 5 (“very often or always”), as appropriate. The QPS has acceptable psychometric properties (Wannstrom, Peterson, Asberg, Nygren, & Gustavsson, 2009a, 2009b).

3.3.4 Attitudes towards ROM.

In paper 3, attitudes towards ROM were measured with a rephrased version of the Evidence-Based Practice Attitude Scale-50 (EBPAS-50, see section 3.3.2.2) (Aarons, 2004; Aarons et al., 2012), adapted and translated into Norwegian for the present study. The questions were edited herein and framed to ask about attitudes towards adopting ROM.

3.3.5 Current use of standardized instruments

For paper 3, the assessment of the current use of standardized instruments as a means of treatment planning and evaluation included the following questions: “How often do you use standardized tests and measurements when planning your clinical work?”; “How often do you use standardized questionnaires as part of monitoring treatment response?”; and “How often do you use standardized questionnaires as part of evaluating treatment effect?” Responses were given on a 5-point Likert scale, ranging from “very seldom/never” to “very often/always”.

3.3.6 Open-comment fields

For both surveys, open-commentary fields were provided so that respondents had the opportunity to supply supplementary information where appropriate, or to convey personal opinions. Thus, feedback on content and the survey overall could be provided.

3.3.7 Conceptualization

Survey 1 and, thus, articles 1 and 2 concerning attitudes towards adopting EBI were framed within the context of "specific research-supported interventions only" (i.e., therapies, interventions, methods), as further elaborated in section 3.3.2.1. For survey 2, article 3, the instructions of the EBPAS-ROM instrument measuring attitudes to ROM were specified as follows: "The following questions concern your attitudes to systematically using routine outcome measures to obtain feedback on patients' problems and change throughout the course of treatment. Routine outcome measures refer to standardized instruments assessing mental health status, in which health personnel or patients report current status on common mental health issues. The instruments can be administered either on paper or through web or software support systems".

3.4 Treatment of missing

In article 2, missing EBPAS-36 and QPSnordic item scores were imputed using the expectation maximization (EM) method. Values were imputed separately for each subscale's set of items. In article 3, missing EBPAS ROM-version items were imputed using the EM method. Values were imputed separately for the set of items belonging to each subscale, following the exclusion of respondents with <1 missing item on 3 item scales and <2 missing items on 4-7 item scales, as described in the procedure and sample section.

3.5 Statistical analysis

As part of instrument development and adaption, factor analysis was employed for the evaluation of item reduction and validation of the factor structure. Various regression models were developed for predictive analyses. Additionally, descriptive statistics and correlation analysis assessed the strengths of the associations as well as the estimation of internal consistency.

In article 1, confirmatory factor analyses (CFA) for the evaluation of item reduction were conducted in Mplus v7.2. The model was specified according to the 12 subscales of the original EBPAS-50. The Norwegian sample was split for the reduction and the validation process, using half of the sample as an exploratory sample to identify the shorter version and the other half to validate the instrument's factor structure. For the US sample, the same sample was used for both the reduction and the validation processes. As the primary goal was to reduce the length of the EBPAS-50 while retaining the original factors, a minimum of three items per factor were retained. Thus, subscales containing four or more items were shortened based on a combination of the following criteria: (1) retention of items with the highest factor loadings; (2) evaluations of modification indices, where coupled items with the highest modification indices were considered for reduction; and (3) items that are conceptually similar or add unique information. The reduction procedure was performed separately for the US and Norwegian samples, allowing comparison and discussion of the resulting versions before the establishment of a final consensus version. The final measurement model was then evaluated in the validation sample.

In article 2, to develop a second-order model of attitudes towards the adoption of EBI for further predictive analysis, a CFA with model specification based on the EBPAS-36 was conducted in Mplus v8. Factor scores were then saved in Mplus and subjected to an exploratory second-order principal component analysis (PCA) using SPSS v25. SPSS v25

was also used for correlation analysis, t-tests and regression analysis. Hierarchical multiple regression models were built to examine the predictive value of the demographic background variables and social and psychological factors at work for attitudes towards adopting EBI. For all analyses, predictor variables were entered in the same predefined blocks. The order in which variables were entered was determined to examine whether staff roles contributed significantly to the model after controlling for all other predictor variables: block 1: gender, age and years of experience; block 2: level of education; block 3: workplace and the indicator of being employed at a work site systematically employing one or more EBI; block 4: QPSnordic subscales and the single QPSnordic item regarding the social climate being rule-based and rigid; and block 5: staff role as a clinician, holding a position as a psychologist or a nurse and having leadership responsibilities.

For article 3, a CFA for item reduction evaluations and validation was conducted in Mplus v8.0 following the same procedure described for article 1 above. Only subscales rephrased to directly ask for attitudes towards ROM were retained (requirements, appeal, limitations, fit, burden, job security, organizational support), as were the subscales of monitoring and feedback, which were perceived to be relevant for the implementation of ROM. Correlational analysis and regression analysis were conducted in SPSS v25. Regression models were built to examine the predictive value of attitudinal domains for clinicians' reported use of standardized instruments as a means of treatment planning and evaluation. In model 1, to assess the predictive value of each subscale, regression analysis was conducted separately for each subscale, adjusted for demographic variables. In model 2, to assess the predictive value of each subscale when adjusted for the other subscales, all subscales were entered together with the demographic variables. In model 3, the total scale score representing global attitudes towards adopting ROM was entered together with the covariates gender, age and years of experience.

For articles 1-3, the parameters in the CFAs were estimated with the full information maximum likelihood procedure (FIML), and robust standard errors (MLR) were used to accommodate non-normal item distributions. To assess model fit, the following indices were used: χ^2, root mean square error of approximation (RMSEA), standardized root mean error (SRMR) and the comparative fit indices (CFIs). RMSEA values close to .06, SRMR close to .08 and CFI close to 0.95 indicate an acceptable model fit, in accordance with Hu and Bentler's cut-off recommendations (Hu & Bentler, 1999).

3.6 Ethics

All respondents provided informed consent according to the recommendations of the Norwegian data protection authority for the project. Completion of the surveys was accepted as consent to participate in the project.

4. Main results

4.1 Paper 1

The collaborative Norwegian and US EBPAS-50 item reduction process resulted in consensus on a 36-item instrument named the EBPAS-36, in which the original 12-factor model was maintained. The final model was adequately validated in the validation sample. The EBPAS-36 exhibited acceptable model fit, as indicated by a low degree of misspecification errors and a fair incremental fit for both the US and the Norwegian data, as well as good internal consistency (Cronbach's α) for the total EBPAS-36 score and adequate-to-excellent internal consistency for the subscales (see Table 1). Adequate psychometric properties in the samples from both US and Norway indicated cross-cultural validity, and the instrument was considered brief, pragmatic, user friendly and broad in scope.

4.2 Paper 2

Through hierarchical regression analysis, the results of the second paper showed that provider demographics, social and psychological factors at the workplace and staff role predicted attitudes towards adopting EBI. For instance, male gender, having an older age and working in private practice predicted more negative global attitudes, while working in academia, receiving social support from colleagues and empowering leadership predicted more positive global attitudes towards adopting EBI. Three second-order attitudinal components were also identified through the exploratory second-order PCA: *professional concern* (e.g., perceived limitations of EBI, balance and divergence between clinical practice and science, negative perceptions of monitoring, and a lack of openness to new practices); *attitudes related to work conditions and requirements* (e.g., time and administrative burdens of learning new interventions, job security and perceived organizational support); and *attitudes related to fit and preferences* (e.g., autonomy and fit with the values, preferences and needs of both patient and provider). The prediction outcomes for the specific attitudinal components are presented in paper 2 and will not be discussed in detail here. One of the findings was that younger respondents held more positive attitudes than older respondents on *attitudes related to work conditions and requirements*, capturing issues of organizational support, education, training, job security and interventions being imposed, and that experiencing an empowering leadership style predicted greater willingness to use interventions based on fit and shared preferences and lower professional concern. Overall, the findings highlight the need for implementation strategies to be tailored to the various needs and values of the professionals as well as the context in which they work.

4.3 Paper 3

To measure attitudes towards adopting ROM, the adaptation of the EBPAS instrument resulted in a 27-item instrument measuring 9 of the original 12 EBPAS subscales, named EBPAS-ROM. The validation process resulted in a model fit that was adequate in terms of low misspecification error and good with regard to incremental fit, as well as showing good internal consistency for the total scale score and adequate-to-excellent consistency for the subscales (see Table 1). All EBPAS-ROM subscales, as well as the total scale, showed concurrent value by predicting clinicians' reported use of standardized instruments for treatment planning and evaluation, either independently after adjusting for demographic variables (models 1 and 3) or when adjusted for the other subscales (model 2). For instance, perceived limitations of ROM (e.g., too narrowly focused, not suitable for patients with multiple problems and hindering the connection between therapist and patient) predicted less use of standardized instruments for treatment planning, on-going evaluation of treatment and evaluation of effects when controlling both for demographic variables and the other subscales. Furthermore, the experience of more organizational support (e.g., training, on-going support and receiving educational credits) predicted more reported use of standardized instruments for on-going evaluation of treatment.

Table 1 Main results of EBPAS-36 and EBPAS-ROM: Model fit and internal consistency

Instrument validation	RMSEA (90 % C.I)	SRMR	CFI	TLI	α[1]
EBPAS-36 US[2]	.045 (.040–.049)	.05	.93	.91	.79 (.60–.91)
EBPAS-36 Norwegian[2]	.052 (.047–.056)	.07	.91	.89	.86 (.61–.92).
EBPAS-ROM[3]	.053 (.046-.059)	.06	.93	.92	.85 (.70-.93)

[1]Cronbach's α reported as total scale score (range subscales); [2] Paper 1; [3] Paper 3

5. Discussion

The following discussion begins with a section on instrument development conducted as part of this thesis, followed by a further discussion of the interpretations and implications of our findings and general methodological considerations.

5.1 Instrument refinement

Instrumentation issues have been considered a substantial barrier that requires attention for further developments in implementation science (Lewis et al., 2015; Martinez et al., 2014) and consequently for the practical goal of securing implementation initiatives in clinical service settings. An important part of the current thesis therefore involves examining the psychometric properties of the translated and adapted instruments. This is a task of major importance considering the importance of establishing instruments with sound psychometric properties in the implementation field. Both strengths and limitations arise in our effort to perform this task, as outlined below. We argue that the instrument adaptations followed the recommended steps by reporting how the instruments were adapted and the effect on the adaptations with regard to the psychometric properties of the instrument (Martinez et al., 2014), and by adapting prior instruments tailored to focus on specific practices, such as the EBPAS-ROM (Moullin, Ehrhart, Torres, & Aarons, 2018).

First, it is important to note that our primary goal was to develop brief and pragmatic measures that represented the original EBPAS constructs. This goal allowed us to build upon previous well-developed instruments and facilitated continued testing and development of previously validated instruments with different samples and in different contexts (Martinez et al., 2014). The item removal procedure for both the EBPAS-36 and EBPAS-ROM focused on keeping items that preserved the content and meaning of the subscales in addition to

information about factor loadings and scale reliability. Both the EBPAS-36 and the EBPAS-ROM were concluded to have adequate psychometric properties.

5.1.1. Reliability

Reliability was assessed as a measure of internal consistency through Cronbach's alpha (α). Internal consistency aims to show whether items that propose to measure the same general construct produce similar scores in a particular sample (Streiner, 2003). It is common to describe α-values of ≥ 0.70 as acceptable, ≥ 0.80 as good and ≥ .90 as excellent. However, several factors influence the appropriateness of this interpretation, as outlined below. Except for four of the subscales from the Norwegian EBPAS-36 that had an α-value under 0.70, all other subscales and total scale scores were above or well above 0.7. Compared with the α values of the US EBPAS-50 (Aarons et al., 2012), both the EBPAS-36 and the EBPAS-ROM exhibited lower α values. This can be expected as reducing the number of items often leads to lower internal consistency (Streiner, 2003). Additionally, in the reduction process, attention was paid to excluding items within subscales with content overlap with other items as well as retaining items that added unique information. This strategy might have resulted in subscales with a broader scope, which again is known to lower the α value. Furthermore, Cronbach's alpha is a so-called "lower bound index", implying that it is quite conservative, as it builds upon an assumption of tau-equivalence. In papers 1 and 3, we argued that the reduced internal consistency is compensated by the lower burden of completing an instrument with fewer items, thus strengthening the validity of the scale through less "satisficing", meaning fewer response biases related to irritated or fatigued respondents (Streiner & Norman, 2014). This point is especially relevant to retaining the original dimensions of attitudes with the aim of covering the complexity of attitudes.

5.1.2. Validity

Validity can be defined as "the degree to which evidence and theory support the interpretations of test scores for proposed uses" (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 2014). In that regard, a strength of both the EBPAS-36 and the EBPAS-ROM is that they are built upon the well-known and previously validated EBPAS instruments (Aarons, 2004; Aarons et al., 2012), which were developed from theories of dissemination and implementation in mental health and consultations with mental health service providers and researchers. Furthermore, the construct validity of the adapted EBPAS-36 and EBPAS-ROM was statistically assessed through CFA modelling of the original EBPAS subscales, with acceptable model fit results. Nevertheless, there *is* a general concern in implementation science regarding the definition of constructs, which is further discussed in sections 1.11 and 5.4.4.

Article 1 allowed us to compare psychometric properties in two different national contexts; adequate results in both settings increase cross-cultural validity. Article 2 expanded the assessment of validity by supporting the concurrent validity of the instrument through predictive analyses of how provider demographic and organizational factors predict attitudes towards adopting EBIs. Additionally, in article 3, the predictive analyses supported the concurrent validity of the EBPAS-ROM by exploring both the subscales and the total scale's ability to predict the outcome, which was clinicians' use of standardized instruments for treatment planning and evaluation.

5.1.3. Practicality and pragmatism

Martinez et al. (2014) highlight practicality and pragmatism as the most important instrumentation issues, given the real-world context of implementation science. These two

terms are often used interchangeably. Glasgow and Riley (2013) discuss the importance of instruments being important to stakeholders, having a low burden, being broadly applicable and useful for benchmarking, having norms, and being unlikely to cause harm, psychometrically strong and related to theory or models. Martinez et al. (2014) highlight costs, accessibility, the length of instruments and easily understood language as the main factors to consider when developing instruments. While practicality and sound psychometrics might be issues that seemingly compete with each other when developing and choosing an instrument for an implementation initiative, we argue that the adapted instruments described in this thesis attempt to balance both agendas. Thus, these instruments exhibit practicality in that they are openly available at no cost and that their length is reduced. Therefore, they are easier and less time consuming for use in resource-demanding settings, while reducing the chance of bias due to irritated and fatigued respondents. Additionally, attention was given to the readability of the instruments through both the translation procedure, in which items were altered following comments on readability, and the reduction of items, in which items with the most easily understood language were chosen. The instruments are also unlikely to cause harm and can be subjected to benchmarking, thereby fulfilling multiple criteria for being pragmatic measures.

5.2 Interpretations of findings

5.2.1. Differences between staff roles and positions

Although the effect sizes were small, analyses of group differences revealed that the nurses in our sample held a slightly more positive global attitudes towards the adoption of EBI than the psychologists did, and clinicians held less positive global attitudes towards the adoption of EBI than non-clinicians did. The results have been considered in light of the results from Green and Aarons (2011) and Asadoorian, Hearson, Satyanarayana, and Ursel (2010), which

highlight the different positions and perspectives of various stakeholders. For instance, clinicians may be more concerned with how new interventions might interfere with their clinical work with patients. Considering the relatively small differences in our sample and the fact that previous research has both found and failed to find differences between different staff roles (Aarons et al., 2010; Arumugam, MacDermid, Walton, & Grewal, 2018; Asadoorian et al., 2010), we encourage more research on this topic.

5.2.2. Provider demographics

The regression analyses included in both paper 2 and 3 indicate effects due to provider demographics. The explained variance of the regression analyses were approximately between 5 and 25% (note, not reported in paper 3), indicating that many factors other than those we have studied also contribute to the predicted outcomes. Effects of gender were found in both paper 2 and 3, with men reporting more negative attitudes towards the adoption of EBI than females and females reporting more use of standardized instruments for treatment planning than males. Paper 2 reported age differences, with younger respondents holding more positive attitudes than older respondents towards the adoption of EBI overall as well as more positive attitudes related to the second-order component of *attitudes related to work conditions and requirements*, which captured issues of organizational support, education, training, job security and imposed interventions. The last finding is in line with findings of Okamura, Hee, Jackson, and Nakamura (2018), in which younger therapists exhibited more favourable attitudes in the job security and organizational support domains. Both paper 2 and 3 also reported differences with regard to years of experience: paper 2 indicated that more years of experience predicted a higher score in the *professional concern* domain, while paper 3 reported that clinicians with more years of clinical experience reported less use of standardized instruments for treatment planning. As will be discussed in section 5.3, this

result might indicate different needs and priorities between professionals in different age groups and phases of their careers, which has implications for implementation strategies.

Respondents working at sites that systematically apply one EBI or more held more positive global attitudes and less *professional concerns*, which, in line with Powell et al. (2017), might indicate that increased experience and knowledge of EBI among professionals might influence attitudes in a positive direction. However, this finding could also suggest that professionals with positive attitudes towards EBI seek a work environment that employs and encourages the use of EBI, thereby influencing our results. Furthermore, article 2 reported that individuals working as private practitioners held more negative global attitudes, more *professional concern* and a lower score for *attitudes related to work conditions and requirements* compared to those working in public outpatient services. Respondents working in academia held more positive global attitudes and presented less concern regarding the adoption of EBI, while those working in a combined position involving both clinical work and research and education had lower scores for *attitudes related to work conditions and requirements*. Individuals who did not have leadership responsibilities showed more professional concern towards the adoption of EBI and were more influenced by attitudes related to fit and preference (i.e., the fit with the clinicians' current approach, the perceived needs of clients and positive perceptions of feedback). These findings can be interpreted in the context of the different positions and perspectives of different stakeholders (Asadoorian et al., 2010; Green & Aarons, 2011; Stadnick et al., 2017) and a greater concern regarding issues that directly interfere with one's everyday practice. Examples include non-leaders expressing more concern, as they are often the ones performing the new interventions; scepticism towards science and research findings; or different motivations to seek different work arenas (e.g., private practice, work sites with specific EBI agendas). Although our research design does not allow us to provide causal explanations for the above findings, they indicate that

providers' demographic characteristics and their inherent complexities need to be taken into account when planning an implementation initiative (see section 5.3 for a discussion of implications).

5.2.3. Organizational factors: Social and psychological factors at work

Article 2 reported on how social and psychological factors at work predicted attitudes towards the adoption of EBI. First, the experience of being more in control of decisions regarding one's own work situation predicted global attitudes and more professional concern, putting less weight on work conditions and requirements, and a greater readiness to use interventions based on fit and shared preferences with patients and colleagues. The QPS Nordic`s control over decisions included questions about having control over the workload and work methods, which might indicate that respondents who scored highly in this dimension felt more autonomy and had a personal choice in how to perform their work. Second, experiencing an empowering leadership style as well as the perception of receiving collegial assistance predicted more positive global attitudes towards the adoption of EBI, a greater willingness to use interventions based on fit and shared preferences and lower professional concern. The empowering leadership subscale included the experience of being encouraged by superiors to take part in decision making, sharing ones opinions and skill development. Although leadership style was measured with other instruments, this finding can be seen in light of other studies, highlighting the role of positive leadership styles with regard to professionals' attitudes towards adopting EBI (Aarons, 2006). Finally, our results support previous research regarding workload as a barrier to adopting EBI (Aarons et al., 2012; Okamura et al., 2018). The experience of more job demands predicted *attitudes related to work conditions and requirements*, including perceived time and administrative burden of learning new interventions and the call for organizational support, training and education.

5.2.4. ROM attitudes and reported use of standardized instruments for treatment planning and evaluation.

In article 3, the reported findings showed that perceived limitations of the use of ROM as being too narrowly focused, unsuitable for patients with multiple problems and hindering the connection between the therapist and patient predicted less use of standardized instruments for treatment planning, on-going evaluation of treatment and the evaluation of effects. This relationship might be unsurprising considering the literature on therapist attitudes towards ROM as a barrier to the adoption of ROM (e.g., Lilienfeld et al., 2013). Nevertheless, this result is important from several aspects. In addition to the promising value of the limitation subscale for addressing this aspect for both research and practice purposes, identifying professionals' potential concerns (or the absence of concern) has implications for implementation initiatives (see section 5.3). In our sample, the mean score of the scale items suggests that most respondents did not score highly on perceived limitations. Future research aimed at examining whether this is a general finding or whether it varies between samples and contexts is encouraged.

Additional findings with possible implications for implementation initiatives were that the experience of more organizational support (e.g., training, on-going support and receiving educational credits) predicted more reported use of standardized instruments for on-going evaluation of treatment and that a higher score on the job security subscale predicted more use of standardized instruments for the evaluation of treatment effects. In line with studies by Sharples et al. (2017) and Overington, Fitzpatrick, Hunsley, and Drapeau (2015), our results indicate that training, on-going support and educational efforts can act as important facilitators of the implementation of ROM.

Interestingly, the fit and burden subscales predicted the use of standardized instruments in an unexpected direction. The fit subscale, which addressed the fit with ROM and the professionals clinical approach and knowledge that one's clients wished to use ROM, co-occurred with *less* use of such instruments, whereas reporting a higher score on the burden subscale, referring to concerns about paperwork, administrative burden and time demands, predicted *more* use. Although several possible explanations for these findings (e.g., a tool for structuring a complex work situation) are discussed in article 3, future research should explore whether these findings also hold in other samples.

Finally, the finding that more positive global attitudes towards the adoption of ROM predicted more use of standardized instruments for all given purposes indicates that clinicians' attitudes are important when planning the implementation of ROM.

5.3 Implications

The Norwegian regulations on management and quality improvement in the healthcare services highlights how to plan, carry out, evaluate and adjust services provided, to secure professional accountability and quality improvement in the health services (Ministry of Health and Care Services, 2016). In this picture, implementation science can be argued to have a significant role, aiming at understanding factors leading to adoption and sustainment of planned initiatives and ultimately aiming at improving the quality and effectiveness of the health services. The implications of the work described in the present thesis highlight how implementation efforts may benefit from being tailored to the different needs and values of the affected professionals, with attention to the context in which they work. In planning implementation initiatives, several factors need to be taken into account. Embedded, for instance, in the adoption context levels as outlined by Wisdom et al. (2014), our results imply the need to obtain knowledge about the providers involved (e.g., previous experience, age,

work site, attitudes) and organizational factors (e.g., leadership, organizational support). In the following section, implications for both EBI and ROM are discussed with a special emphasis on training efforts and organizational development. Realizing that training and organizational efforts are not sufficient, the last section regarding implications will focus on some of the more "philosophical" aspects concerning implications for clinical science and practice.

5.3.1 Implications for implementation strategies in real-world clinical service settings: Training efforts and organizational support

In the literature on important implementation strategies, training issues and organizational support are increasingly recognized as essential (Connors et al., 2018; Lyon et al., 2014; McMillen, Hawley, & Proctor, 2016; Park, Tsai, Guan, & Chorpita, 2018). Our results can be interpreted as being especially necessary for the youngest professionals, but are also likely more generally applicable. For instance, the value of training and support was recently reported by Brattland et al. (2018) during the implementation of ROM in a clinical service setting. The finding that patients treated later in the implementation process benefitted more from ROM than those treated in the earlier phases of implementation was interpreted as being accounted for by sustained training and support over time.

An implication of both this thesis and the associated papers is that training and organizational support are not straightforward and might require careful planning in each circumstance. Drawing parallels to ROM, as feedback on patient progress throughout the course of treatment may benefit improvement, feedback on the implementation progress might do the same to facilitate implementation success. The use of psychometrically sound and pragmatic instruments to measure implementation factors might reveal barriers during the course of the implementation phases, thus allowing strategies to be tailored to particular needs or modifications to be made when necessary. It may also contribute to reveal what it is that

work or does not work to achieve implementation success or failure. Implementation frameworks can be helpful for structuring needs at both the individual provider level and the organizational level as well as the client and intervention levels (Damschroder et al., 2009; Wisdom et al., 2014). For instance, with regard to the amount of existing EBI as well as factors common to all EBI, implementers need to choose which EBI, intervention component or common factor is their focus and the scaling of training that is needed. This approach must take into account the problem(s) presented by the clients as well as their environments; the different needs, values and priorities of professionals; and the availability of resources. The same principles relate to the choice of which ROM solution is appropriate for a given clinical service setting and to the provision of proper organizational support to move from adoption to successful sustainment of the intervention. Factors that need to be considered include differences in the knowledge and experience of professionals before starting the implementation initiative and the fact that their attitudes towards the adoption of new interventions may vary substantially. For instance, while younger professionals might be in a period of their career with a greater focus on acquiring skills and appropriate clinical knowledge, older professionals have a greater experience base (which actually constitutes one of three elements in EBP) and might be more concerned with how an intervention interferes with their everyday practice. Additionally, developing positive leadership abilities and learning environments within an organization that make it valuable for staff to participate in important decisions as well as safe to try out new practices and seek assistance from one's colleagues, might be elements that could foster and motivate staff to be able to deliver the intended service.

Furthermore, training issues are not limited to implementation initiatives but also affect the schooling, educational settings and clinical practice of students. In this regard, Wampold (2015) highlights that the use of ROM is not limited to the documentation of

effects, but that ROM also has the potential to be used together with various skill assessments, allowing training to be targeted towards particular areas in need of growth. This implies that ROM might be more generally utilized also for therapeutic and organizational growth.

5.3.2 Implications for clinical science and practice: Attitudes and practice.

In article 2, we argued that ignoring the knowledge of and potential causes of professionals' attitudinal concerns about using EBI might be quite risky, with regard to both widening the scientist-practitioner gap and wasting invested resources in real-world practice settings, due to hampered implementation initiatives. In conjunction with this is our discussion in paper 3, where findings concerning perceived limitations of ROM and the value of organizational support is suggested to reflect the distinct needs of professionals, representing clinical utility and professional concerns on one hand, and on the other hand, more administrative and practical needs (see also Boyce, Browne, & Greenhalgh, 2014). This distinction parallels the divide of attitudinal barriers to ROM into practical and philosophical aspects (Boswell et al., 2015; Hatfield & Ogles, 2004). Why might this distinction be of importance? Well, as discussed by Boyce et al. (2014), even after the successful provision of implementation strategies such as proper training and administrative support, these professional concerns might endure, acting as potential implementation obstacles in the long run. Thus, revealing, understanding and dealing with professional limitations and concerns, or the absence thereof, is of importance when planning implementation strategies, with regard to both adoption and final sustainment of an intervention.

Importantly, efforts to describe and study attitudes towards EBI and ROM among mental health care professionals does not involve revealing who is for and who is against science and evidence. For that, the concepts are (luckily) too complex. Throughout the thesis, we have described attitudes as multidimensional and complex, with potential to vary during

one's lifetime and according to the context in which one works. The longstanding science-practice gap has been described as originating in deep-seated attitudinal differences but probably to a greater extent reflects how one views and conceptualizes "evidence" in the first place, such as which sources of knowledge one considers valid (e.g., RCTs or subjective experiences) (Lilienfeld et al., 2013). Thus, how we understand knowledge will influence the kind of research questions that we ask and what kind of research designs we will use. Following this line of reasoning are the possibilities and limitations of different research designs that make them suitable for shedding light on certain important questions, but not on others (Oddli, 2013). For instance, throughout history, RCTs as gold standard for psychological science might have been shunned as representing a system advocating standardization, effectiveness and cost-benefit analysis, without concern for individual patients' needs. At the same time, RCTs have provided valuable insight into the "general question", which can be seen as contributing to opening doors to research questions that deal with mechanisms of change and what facilitates patients improving with therapy (Castonguay, 2013). The movement towards practice-based evidence and the use of ROM in routine mental health care might imply active collaboration between clinicians and researchers at all levels of an initiative, for instance from the choice of a topic or project one is interested in, implementation and the analysis and dissemination of results. Through a joint effort involving both respecting and acting upon what are perceived as potential limitations or concerns among professionals, the use of ROM might have potential to bridge the gap between science and practice, further potentially developing psychotherapy research in new directions and increasing the knowledge of what actually makes psychotherapy work or fail to work (Castonguay, 2013; Newnham & Page, 2010; Wampold & Imel, 2015). A main goal is enhancing patient outcomes and the quality of the mental health services provided even more. This implies a need to develop practice-near and relevant outcome measures as well as a

proper understanding and openness regarding how ROM measures are to be used (and not used) in routine clinical practice.

5.4. General methodological considerations

5.4.1 General comments on reliability and validity

In addition to discussing the reliability and validity of the developed EBPAS-36 and EBPAS-ROM (see sections 5.1.1 and 5.1.2), it is worth commenting on reliability and validity in general. For survey 2, subscales from the QPS Nordic were used to measure organizational features and work climate (see section 3.3.3 for a description of the instrument). In the reliability assessment of the present study, the α values of the present sample for the included subscales all exceeded 0.70. The implementation literature on organizational factors has noted the problem of various definitions and contents of constructs (Chaudoir et al., 2013), which might influence the generalizability of the interpretations of our study. Additionally, due to the cross-sectional research design, uncertainty regarding internal validity arises because we cannot draw conclusions on causal relationships.

5.4.2. Generalizability and representativeness

A general limitation involving both surveys is the low response rate, potentially representing a risk of bias in our results. A low response rate is a well-known problem in web-based survey studies (Van Horn, Green, & Martinussen, 2009). As an example, an online survey study of Australian clinicians' attitudes towards ROM resulted in a response rate of 20 % (Kaiser, Schmutzhart, & Laireiter, 2018). A problem regarding the generalizability of our results to other populations and, thus, a threat to external validity, can arise if there is selective non-participation. Examples might include people working in the most time-demanding settings and therefore being unable to find time to participate or complete the surveys, or

people who have the most negative attitudes choosing not to participate. For practical reasons, the surveys were sent to all members of the participating organizations because it was difficult to filter out, for instance, different work site categories or people who were retired. This situation might have contributed to the low response rate, as some of the organization members did not consider the surveys relevant to their work setting. Because a low response rate and selective non-participation represents less of a problem for regression analyses than for prevalence studies, we argue that this is less problematic in our studies (Stormark, Heiervang, Heimann, Lundervold, & Gillberg, 2008). Another factor worth mentioning is that the studies were not conducted as part of an implementation initiative, potentially both acting as a limitation as well as allowing us to study professional attitudes in general.

5.4.3. Survey research and potential bias

Our studies rely on survey data and, thus, on self-reports. This approach produces the possibility of several potential biases, such as misunderstandings (see also section 5.4.4), false reports and social correctness in respondents' answers (i.e., what they think is right in light of the research questions instead of their actual opinions). Furthermore, our studies do not include objective measures of behaviour, such as direct observations, data from administrative systems or patient case notes, again highlighting the need for future studies to be conducted in real-world settings. However, survey studies are common in this line of research, and are both practical and involve fewer resources.

5.4.4. Conceptualization and possible misinterpretation of terms being used

In all papers, attention was given to proper conceptualization of the terms used with regard to both EBI and ROM (see section 3.3.7). Nevertheless, there is a possibility that misinterpretations or different understandings or meanings of the terms used may have

affected how different people responded, possibly leading to bias in the results. When approaching the literature, both misinterpretations and different understandings can be expected. As several studies have suggested, confusion regarding the concepts of EBP and evidence-based treatments or interventions can act as substantial barriers to the adoption of EBIs (Luebbe et al., 2007; Pagoto et al., 2007; Thyer & Pignotti, 2011). Additionally, in survey 1, some of the comments in the open commentary fields indicated that some respondents had difficulties discerning these two complex concepts. With regard to ROM, Wampold (2015) discusses the various components of ROM, highlighting inherent ambiguities that may influence how various people view ROM. These components include the concept of collecting information about patient progress and providing that information to therapists, the regular administration of a scale, interpretations of simple scores or subscales, the graphical presentation of scores, and comparisons with normative data. Because confusion, misinterpretation or meaning-making may influence professionals' views of "evidence" and research findings as well as the integration of science into routine practice, an important implication is the effort to reduce these concerns through a deeper understanding and communication of what EBP, EBI and ROM truly mean. Together with the overall concern in the implementation literature, ensuring a uniform conceptualization and common language is important.

5.5 Future research

Future research should continue to explore the validity and practicality of the EBPAS-36 and EBPAS-ROM instruments, preferably in different settings, adhering to the need for psychometrically strong and pragmatic instruments in implementation science. For instance, using the instruments in real-world implementation initiatives might provide more knowledge regarding the actual predictive value of the instruments and allow us to study the impact of

various factors on the success or failure of implementation. For new instrument development initiatives, researchers might consider using our adaption and reduction procedure as a model, allowing "new" instruments to be built upon the basis of already established instruments. Here, instrument initiatives such as the SIRC project (Lewis et al., 2018; Lewis et al., 2015) might act as motivation for choosing a proper instrument for a specific purpose.

Ideally, continued research should be conducted as part of real world implementation initiatives, making it possible to explore attitude dimensions in relation to actual behaviours, behavioural changes, the effect of implementation strategies or other parameters of interest. For instance, future research should explore how various training efforts best can facilitate the adoption of new interventions and how organizations can best lay the groundwork for learning environments fostering front-line staff who are capable, motivated and experience value in delivering the intended service.

Furthermore, the complexity of mechanisms and factors involved with regard to attitudes towards the adoption of both EBI and ROM urges future research to continue to address these issues employing a variety of research methodologies. While using a variety of research methodologies might substantially expand our understanding of the different mechanisms in psychotherapy per se, it might also reveal a deeper and more nuanced understanding of the complexities of implementation challenges. Future work should struggle to adhere to established implementation frameworks, in an effort to secure a uniform definition and understanding of concepts of interest.

6. Concluding remarks

Psychotherapy and psychotherapy research are now important and established parts of the mental health care system and have received considerable attention and documentation, both in the media and in high-quality journals (Lambert, 2013). As an applied clinical science, the

major goal of psychotherapy research is to protect and promote patient welfare by identifying principles and procedures that enhance patient outcomes (Lambert, 2013). With the extensive rise in psychotherapy research since the beginning of modern clinical psychology, it is notable that the implementation of evidence-based treatments and interventions in ordinary clinical practice still lags behind their discovery. The debates surrounding "evidence" and "practice" will surely endure, and the constructiveness of these debates might benefit from reflection on and understanding of the historical roots and developments of these issues. The movement towards practice-based evidence and the use of ROM, as well as the field of implementation science, which strive for a better integration of evidence into practice, might lead to further advances in both psychotherapy and psychotherapy research, resting upon active collaboration between science and practice and aiming for better patient outcomes. During the years since this Ph.D. was planned, there have been notable developments in the field of implementation science (Brownson, Colditz, & Proctor, 2018). The work in the current thesis contributes to this growing knowledge base with regard to factors that are important for the implementation of EBI in routine mental health care settings and the more specific practice of ROM, an initiative with the potential to bridge the gap between research and clinical practice.

7. References

Aarons, G. A. (2004). Mental health provider attitudes toward adoption of evidence-based practice: the Evidence-Based Practice Attitude Scale (EBPAS). *Mental Health Services Research, 6*(2), 61-74.

Aarons, G. A. (2005). Measuring provider attitudes toward evidence-based practice: Consideration of organizational context and individual differences. *Child and Adolescent Psychiatric Clinics of North America, 14*(2), 255-viii. doi: 10.1016/j.chc.2004.04.008

Aarons, G. A. (2006). Transformational and transactional leadership: Association with attitudes toward evidence-based practice. *Psychiatric Services, 57*(8), 1162-1169. doi:DOI 10.1176/appi.ps.57.8.1162

Aarons, G. A., Cafri, G., Lugo, L., & Sawitzky, A. (2012). Expanding the domains of attitudes towards evidence-based practice: the evidence based practice attitude scale-50. *Administration and Policy in Mental Health, 39*(5), 331-340. doi:10.1007/s10488-010-0302-3

Aarons, G. A., Glisson, C., Hoagwood, K., Kelleher, K., Landsverk, J., & Cafri, G. (2010). Psychometric properties and U.S. National norms of the Evidence-Based Practice Attitude Scale (EBPAS). *Psychological Assessment, 22*(2), 356-365. doi:10.1037/a0019188

Aarons, G. A., Hurlburt, M., & Horwitz, S. M. (2011). Advancing a Conceptual Model of Evidence-Based Practice Implementation in Public Service Sectors. *Administration and Policy in Mental Health and Mental Health Services Research, 38*(1), 4-23. doi:10.1007/s10488-010-0327-7

Aarons, G. A., Moullin, J. C., & Ehrhart, M. G. (2018). The role of organizational processes in dissemination and implementation research. In R. C. Brownson, G. A. Colditz, & E. K. Proctor (Eds.), *Dissemination and implementation research in health: translating science to practice* (2nd ed., pp. 121-142). New York: Oxford University Press.

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211. doi: 10.1016/0749-5978(91)90020-T

Albee, G. W. (2000). The Boulder model's fatal flaw. *American Psychologist, 55*(2), 247-248. doi: 10.1037//0003-066x.55.2.247

Alfarnes, S. A. (2015, December 3). Hva skal vi med pakkeforløp i psykisk helsevern. Retrieved from https://psykologisk.no/2015/12/hva-skal-vi-med-pakkeforlop-i-psykisk-helsevern/

Amble, I., Gude, T., Stubdal, S., Andersen, B. J., & Wampold, B. E. (2015). The effect of implementing the Outcome Questionnaire-45.2 feedback system in Norway: A multisite randomized clinical trial in a naturalistic setting. *Psychotherapy Research, 25*(6), 669-677. doi:10.1080/10503307.2014.928756

American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (2014). *Standards for educational and psychological testing*. Washington, DC: Americal Educational Research Association.

APA Presidential Task Force on Evidence-Based Practice (2006). Evidence-based practice in psychology. *American Psychologist, 61*(4), 271-285. doi:10.1037/0003-066X.61.4.271

Arumugam, V., MacDermid, J. C., Walton, D., & Grewal, R. (2018). Attitudes, knowledge and behaviors related to evidence-based practice in health professionals involved in pain management. *International Journal of Evidence-Based Healthcare*. doi:10.1097/XEB.0000000000000131

Asadoorian, J., Hearson, B., Satyanarayana, S., & Ursel, J. (2010). Evidence-based practice in healthcare: an exploratory cross-discipline comparison of enhancers and barriers. *Journal of Healthcare Quality, 32*(3), 15-22. doi: 10.1111/j.1945-1474.2010.00081.x

Baker, D. B., & Benjamin, L. T. (2000). The affirmation of the scientist-practitioner - A look back at Boulder. *American Psychologist, 55*(2), 241-247. doi: 10.1037/0003-066x.55.2.241

Balas, E. A., & Boren, S. A. (2000). Managing Clinical Knowledge for Health Care Improvement. *Yearbook of Medical Informatics 2000*, 65-70.

Barkham, M., Hardy, G. E., & Mellor-Clark, J. (2010). *Developing and delivering practice-based evidence: a guide for the psychological therapies*. Oxford: John Wiley and Sons Ltd.

Barkham, M., Margison, F., Leach, C., Lucock, M., Mellor-Clark, J., Evans, C., . . . McGrath, G. (2001). Service profiling and outcomes benchmarking using the CORE-OM: Toward practice-based evidence in the psychological therapies. *Journal of Consulting and Clinical Psychology, 69*(2), 184-196. doi:10.1037/0022-006x.69.2.184

Barnett, M., Brookman-Frazee, L., Regan, J., Saifan, D., Stadnick, N., & Lau, A. (2017). How Intervention and Implementation Characteristics Relate to Community Therapists' Attitudes Toward Evidence-Based Practices: A Mixed Methods Study. *Administration and Policy in Mental Health and Mental Health Services Research, 44*(6), 824-837. doi:10.1007/s10488-017-0795-0

Bickman, L., Douglas, S. R., De Andrade, A. R., Tomlinson, M., Gleacher, A., Olin, S., & Hoagwood, K. (2016). Implementing a Measurement Feedback System: A Tale of Two Sites. *Administration and Policy in Mental Health, 43*(3), 410-425. doi:10.1007/s10488-015-0647-8

Bickman, L., Kelley, S. D., Breda, C., de Andrade, A. R., & Riemer, M. (2011). Effects of routine feedback to clinicians on mental health outcomes of youths: results of a randomized trial. *Psychiatric Services, 62*(12), 1423-1429. doi: 10.1176/appi.ps.002052011

Bohner. G., & Wänke, M. (2002). *Attitudes and attitude change*. East Sussex: Psychology Press ltd.

Boswell, J. F., Kraus, D. R., Miller, S. D., & Lambert, M. J. (2015). Implementing routine outcome monitoring in clinical practice: Benefits, challenges, and solutions. *Psychotherapy Research, 25*(1), 6-19. doi:10.1080/10503307.2013.817696

Boyce, M. B., Browne, J. P., & Greenhalgh, J. (2014). The experiences of professionals with using information from patient-reported outcome measures to improve the quality of healthcare: a systematic review of qualitative research. *Bmj Quality & Safety, 23*(6), 508-518. doi:10.1136/bmjqs-2013-002524

Brattland, H., Koksvik, J. M., Burkeland, O., Grawe, R. W., Klockner, C., Linaker, O. M., . . . Iversen, V. C. (2018). The effects of routine outcome monitoring (ROM) on therapy outcomes in the course of an implementation process. A randomized clinical trial. *Journal of Counseling Psychology*. doi:10.1037/cou0000286

Brownson, R. C., Colditz, G. A., & Proctor. E. K. (2018). *Dissemination and implementation research in health: Translating science into practice* (2nd ed.). New York: Oxford University Press.

Brownson, R. C., Kreuter, M. W., Arrington, B. A., & True, W. R. (2006). Translating scientific discoveries into public health action: How can schools of public health move us forward? *Public Health Reports, 121*(1), 97-103. doi: 10.1177/003335490612100118

Carlier, I. V., Meuldijk, D., Van Vliet, I. M., Van Fenema, E., Van der Wee, N. J., & Zitman, F. G. (2012). Routine outcome monitoring and feedback on physical or mental health status: evidence and theory. *Journal of Evaluation in Clinical Practice, 18*(1), 104-110. doi:10.1111/j.1365-2753.2010.01543.x

Castonguay, L. G. (2013). Psychotherapy Outcome: An Issue Worth Re-Revisiting 50 Years Later. *Psychotherapy, 50*(1), 52-67. doi:10.1037/a0030898

Cautin, R. L. (2011). A century of psychotherapy, 1860-1960. In J. C. Norcross, G. R. Vandenbos, & D. K. Freedheim (Eds.), *History of psychotherapy: Continuity and Change* (2 ed., pp. 3-38). Washington, DC, US: Amarican Psychological Assocoation.

Chaudoir, Dugan, & Barr. (2013). Measuring factors affecting implementation of health innovations: a systematic review of structural, organizational, provider, patient, and innovation level measures. *Implementation Science, 8, 22*. doi:10.1186/1748-5908-8-22

Chor, K. H. B., Wisdom, J. P., Olin, S. C. S., Hoagwood, K. E., & Horwitz, S. M. (2015). Measures for Predictors of Innovation Adoption. *Administration and Policy in Mental Health and Mental Health Services Research, 42*(5), 545-573. doi:10.1007/s10488-014-0551-7

Connors, E. H., Schiffman, J., Stein, K., LeDoux, S., Landsverk, J., & Hoover, S. (2018). Factors Associated with Community-Partnered School Behavioral Health Clinicians' Adoption and Implementation of Evidence-Based Practices. *Administration and Policy in Mental Health and Mental Helath Services Research*. doi:10.1007/s10488-018-0897-3

Cook, J. M., Schnurr, P. P., Biyanova, T., & Coyne, J. C. (2009). Apples Don't Fall Far From the Tree: Influences on Psychotherapists' Adoption and Sustained Use of New Therapies. *Psychiatric Services, 60*(5), 671-676.

Crits-Christoph, P., Gibbons, M. B. C., & Mukherjee, D. (2013). Psychotherapy Process-Outcome Research. In M. J. Lambert (Ed.), *Bergin and Garfield`s Handbook of Psychotherapy and Behaviour Change* (6th ed., pp. 298-340). New jersey: John Wiley & Sons, Inc.

Dalheim, A., Harthug, S., Nilsen, R. M., & Nortvedt, M. W. (2012). Factors influencing the development of evidence-based practice among nurses: a self-report survey. *Bmc Health Services Research, 12*. doi:10.1186/1472-6963-12-367

Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implementation Science, 4*. doi:10.1186/1748-5908-4-50

De Jong, K., Timman, R., Hakkaart-Van Roijen, L., Vermeulen, P., Kooiman, K., Passchier, J., & Van Busschbach, J. (2014). The effect of outcome monitoring feedback to clinicians and patients in short and long-term psychotherapy: a randomized controlled trial. *Psychotherapy Research, 24*(6), 629-639. doi:10.1080/10503307.2013.871079

Dearing, J. W., Kee, K. F., & Peng, T.-Q. (2018). Historical roots of dissemination and implementation science. In R. C. Brownson, G. A. Colditz, & E. K. Proctor (Eds.), *Dissemination and implementation reserach in health: Translating science to practice* (2nd ed., pp. 47-62). New York: Oxford University Press.

DeLeon, P. H., Kenkel, M. B., Garcia-Shelton, L., & Vandenbos, G. R. (2011). Psychotherapy, 1960 to the present. In J. C. Norcross, Vandenbos, G. R., & D. K. Freedheim (Eds.), *History of psychotherapy: Continuity and change* (2nd ed., pp. 3-38). Washington, DC, US: American Psychological Association.

Dienes, Z. (2008). *Understanding psychology as a science: An introduction to scientific and statistical interference*. New York: Palgrave Macmillan.

Drake, R. E., Goldman, H. H., Leff, H. S., Lehman, A. F., Dixon, L., Mueser, K. T., & Torrey, W. C. (2001). Implementing evidence-based practices in routine mental health service settings. *Psychiatric Services, 52*(2), 179-182. doi:DOI 10.1176/appi.ps.52.2.179

Duncan. (2002). The Legacy of Saul Rosenzweig: The Profundity of the Dodo Bird. *Journal of Psychotherapy Integration, 12*(1), 32-57. doi:10.1037//1053-0479.12.1.32

Duncan, B. L., Miller, S. D., Wampold, B. E., & Hubble, M. A. (2010). *The heart and soul of change: Delivering what works in therapy*. Washington DC: American Psychological Association.

Duncan, B. L., & Reese, R. J. (2015). The Partners for Change Outcome Management System (PCOMS) revisiting the client's frame of reference. *Psychotherapy (Chic), 52*(4), 391-401. doi:10.1037/pst0000026

Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Fort Worth, TX: Harcourt Brace Jovanovich College Publishers.

Eccles, M. P., & Mittman, B. S. (2006). Welcome to Implementation Science. *Implementation Science, 1*. doi:10.1186/1748-5908-1-1

Fazio, R. H. (1990). Multiple Processes by Which Attitudes Guide Behavior - the Mode Model as an Integrative Framework. *Advances in Experimental Social Psychology, 23*, 75-109. doi:10.1016/S0065-2601(08)60318-4

Festinger, L. (1957). *A theory of cognitive dissonance*. Evanston, IL: Row, Peterson.

Frank, G. (1984). The Boulder Model - History, Rationale, and Critique. *Professional Psychology-Research and Practice, 15*(3), 417-435.

Friborg, O. (2010). Klassisk testteori og utvikling av spørreinstrumenter. In M. Martinussen (Ed.), *Kvantitativ forskningsmetodologi i samfunns- og helsefag (pp. 15-55)*. Bergen: Fagbokforlaget.

Glasgow, R. E., & Riley, W. T. (2013). Pragmatic measures: what they are and why we need them. *American Journal of Preventive Medicine, 45*(2), 237-243. doi:10.1016/j.amepre.2013.03.010

Glisson, C., Landsverk, J., Schoenwald, S., Kelleher, K., Hoagwood, K. E., Mayberg, S., . . . The Research Network on Youth Mental Health. (2008). Assessing the organizational social context (OSC) of mental health services: implications for research and practice. *Administration and Policy in Mental Health and Mental Health Services Research, 35*(1-2), 98-113. doi:10.1007/s10488-007-0148-5

Goldman, H. H., & Seybolt, D. C. (2015). What can we learn from the ongoing challenge to implement routine outcome measures? *International Review of Psychiatry, 27*(4), 261-263. doi:10.3109/09540261.2015.1069513

Graham, F., Robertson, L., & Anderson, J. (2013). New Zealand occupational therapists' views on evidence-based practice: a replicated survey of attitudes, confidence and behaviours. *Australian Occupational Therapy Journal, 60*(2), 120-128. doi:10.1111/1440-1630.12000

Green, A. E., & Aarons, G. A. (2011). A comparison of policy and direct practice stakeholder perceptions of factors affecting evidence-based practice implementation using concept mapping. *Implementation Science, 6*, 104. doi:10.1186/1748-5908-6-104

Greenhalgh, T., Howick, J., & Maskrey, N. (2014). Evidence based medicine: a movement in crisis? *BMJ, 348*. doi:10.1136/bmj.g3725

Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of innovations in service organizations: systematic review and recommendations. The *Milbank Quarterly, 82*(4), 581-629. doi:10.1111/j.0887-378X.2004.00325.x

Haines, A., Kuruvilla, S., & Borchert, M. (2004). Bridging the implementation gap between knowledge and action for health. *Bulletin of the World Health Organization, 82*(10), 724-731.

Halvorsen, P. (2018, September 11). Mykere pakker enn fryktet? Retrieved from https://www.psykologforeningen.no/foreningen/nyheter-og-kommentarer/aktuelt/mykere-pakker-enn-fryktet

Hannan, C., Lambert, M. J., Harmon, C., Nielsen, S. L., Smart, D. W., Shimokawa, K., & Sutton, S. W. (2005). A lab test and algorithms for identifying clients at risk for treatment failure. *Journal of Clinical Psychology, 61*(2), 155-163. doi:Doi 10.1002/Jclp.20108

Hatfield, D. R., & Ogles, B. M. (2004). The use of outcome measures by psychologists in clinical practice. *Professional Psychology-Research and Practice, 35*(5), 485-491. doi:10.1037/0735-7028.35.5.485

The Norwegian Directorate of Health (2018). *Nasjonal plan for implementering av pakkeforløp for psykisk helse og rus 2018-2020* (IS-2734). Retrieved from https://helsedirektoratet.no/Lists/Publikasjoner/Attachments/1447/Nasjonal%20plan%20for%20implementering%20av%20pakkeforløp%20for%20psykisk%20helse%20og%20rus%202018-2020.pdf

Hofgaard, T. L. (2015, August 13). Debatt om psykisk helse: Én pakke for alle? *Aftenposten*. Retrieved from https://www.aftenposten.no/meninger/debatt/i/5MQK/Debatt-om-psykisk-helse-n-pakke-for-alle

Hu, L. T., & Bentler, P. M. (1999). Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives. *Structural Equation Modeling-a Multidisciplinary Journal, 6*(1), 1-55. doi:10.1080/10705519909540118

Høie, B. (2015). Pakk opp da, vel! *Tidsskrift for Norsk Psykologforening, 52*(11), 1002-1003.

Høstmælingen, A. (2010). Hvordan kan prinsipperklæringen bidra til å kvalitetssikre psykologisk praksis? *Tidsskrift for Norsk Psykologforening, 47*(10), 930–936

Ionita, G., Fitzpatrick, M., Tomaro, J., Chen, V. V., & Overington, L. (2016). Challenges of using progress monitoring measures: Insights from practicing clinicians. *Journal of Counselling Psychology, 63*(2), 173-182. doi:10.1037/cou0000122

Kaiser, T., Schmutzhart, L., & Laireiter, A. R. (2018). Attitudes of Austrian Psychotherapists Towards Process and Outcome Monitoring. *Administration and Policy in Mental Health and Mental Health Service Research, 45*(5), 765-779. doi:10.1007/s10488-018-0862-1

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. doi:10.1037/0003-066X.63.3.146

Kendrick, T., El-Gohary, M., Stuart, B., Gilbody, S., Churchill, R., Aiken, L., . . . Moore, M. (2016). Routine use of patient reported outcome measures (PROMs) for improving treatment of common mental health disorders in adults. *Cochrane Database of Systematic Reviews, 7*. doi:10.1002/14651858.CD011119.pub2

Kraus, D. R., Seligman, D. A., & Jordan, J. R. (2005). Validation of a behavioral health treatment outcome and assessment tool designed for naturalistic settings: The Treatment Outcome Package. *Journal of Clinical Psychology, 61*(3), 285-314. doi:10.1002/jclp.20084

Lambert, M. J. (2013). *Bergin and Garfield's Handbook of Psychotherapy and Behavior Change* (6 ed.): Wiley.

Lambert, M. J. (2015). Progress feedback and the OQ-system: The past and the future. *Psychotherapy (Chic), 52*(4), 381-390. doi:10.1037/pst0000027

Lambert, M. (2007). Presidential address: What we have learned from a decade of research aimed at improving psychotherapy outcome in routine care. *Psychotherapy Research, 17*(1), 1-14. doi:10.1080/10503300601032506

Lambert, M. J. (2010). *Prevention of treatment failure: the use of measuring, monitoring, and feedback in clinical practice*. Washington, DC: American Psychological Association.

Lambert, M. J. (2013). The efficacy and effectiveness of psychotherapy. In M. J. Lambert (Ed.), *Bergin and Garfield`s handbook of psychotherapy and behavior change* (6th ed., pp. 169-218). Hoboken, New Jersey: John Wiley & Sons, Inc.

Lambert, M. J., Whipple, J. L., Smart, D. W., Vermeersch, D. A., Nielsen, S. L., & Hawkins, E. J. (2001). The effects of providing therapists with feedback on patient progress during psychotherapy: Are outcomes enhanced? *Psychotherapy Research, 11*(1), 49-68. doi:DOI 10.1093/ptr/11.1.49

Lewis, C. C., Mettert, K. D., Dorsey, C. N., Martinez, R. G., Weiner, B. J., Nolen, E., . . . Powell, B. J. (2018). An updated protocol for a systematic review of implementation-related measures. *Systematic Reviews, 7*(1), 66. doi:10.1186/s13643-018-0728-3

Lewis, C. C., Stanick, C. F., Martinez, R. G., Weiner, B. J., Kim, M., Barwick, M., & Comtois, K. A. (2015). The Society for Implementation Research Collaboration Instrument Review Project: A methodology to promote rigorous evaluation. *Implementation Science, 10*. doi:10.1186/s13012-014-0193-x

Lilienfeld, S. O., Ritschel, L. A., Lynn, S. J., Cautin, R. L., & Latzman, R. D. (2013). Why many clinical psychologists are resistant to evidence-based practice: root causes and constructive remedies. *Clinical Psychology Review, 33*(7), 883-900. doi:10.1016/j.cpr.2012.09.008

Luebbe, A. M., Radcliffe, A. M., Callands, T. A., Green, D., & Thorn, B. E. (2007). Evidence-based practice in psychology: perceptions of graduate students in scientist-practitioner programs. *Journal of Clinical Psychology, 63*(7), 643-655. doi:10.1002/jclp.20379

Lyon, A. R., Ludwig, K., Romano, E., Koltracht, J., Stoep, A. V., & McCauley, E. (2014). Using Modular Psychotherapy in School Mental Health: Provider Perspectives on Intervention-Setting Fit. *Journal of Clinical Child and Adolescent Psychology, 43*(6), 890-901. doi:10.1080/15374416.2013.843460

Maio, G. R., Haddock, G., & Verplanken, B. (2018). *The psychology of attitudes and attitude change* (3 ed.). London: SAGE Publications Ltd.

Martinez, R. G., Lewis, C. C., & Weiner, B. J. (2014). Instrumentation issues in implementation science. *Implementation Science, 9*. doi:10.1186/s13012-014-0118-8

McHugh, R. K., & Barlow, D. H. (2010). The Dissemination and Implementation of Evidence-Based Psychological Treatments. *American Psychologist, 65*(2), 73-84. doi:10.1037/a0018121

McMillen, J. C., Hawley, K. M., & Proctor, E. K. (2016). Mental Health Clinicians' Participation in Web-Based Training for an Evidence Supported Intervention: Signs of Encouragement and Trouble Ahead. *Administration and Policy in Mental Health and Mental Health Services Research, 43*(4), 592-603. doi:10.1007/s10488-015-0645-x

Miller, S. D. (2012). Revolution in Swedish Mental Health Practice: The Cognitive Behavioral Therapy Monopoly Gives Way. Retrieved from http://www.scottdmiller.com/revolution-in-swedish-mental-health-practice-the-cognitive-behavioral-therapy-monopoly-gives-way/

Miller, S. D., Hubble, M. A., Chow, D., & Seidel, J. (2015). Beyond Measures and Monitoring: Realizing the Potential of Feedback-Informed Treatment. *Psychotherapy, 52*(4), 449-457. doi:10.1037/pst0000031

Moullin, J. C., Ehrhart, M. G., Torres, E. M., & Aarons, G. A. (2018). Development and testing of a brief EBP implementation intentions scale using Rasch analysis. *Implementation Science, 13*.

Nelson, T. D., Steele, R. G., & Mize, J. A. (2006). Practitioner attitudes toward evidence-based practice: Themes and challenges. *Administration and Policy in Mental Health, 33*(3), 398-409. doi:DOI 10.1007/s10488-006-0044-4

Newnham, E. A., & Page, A. C. (2010). Bridging the gap between best evidence and best practice in mental health. *Clinical Psychology Review, 30*(1), 127-142. doi:10.1016/j.cpr.2009.10.004

Nilsen, P. (2015). Making sense of implementation theories, models and frameworks. *Implementation Science, 10*. doi:10.1186/s13012-015-0242-0

Norcross, J. C. (2011). *Psychotherapy relationships that work: evidence-based responsiveness* (2nd ed.). New York, NY: Oxford University Press.

Norman, S., Dean, S., Hansford, L., & Ford, T. (2014). Clinical practitioner's attitudes towards the use of Routine Outcome Monitoring within Child and Adolescent Mental Health Services: a

qualitative study of two Child and Adolescent Mental Health Services. *Clinical Child Psychology and Psychiatry, 19*(4), 576-595. doi:10.1177/1359104513492348

Nortvedt, M. W., Jamtvedt, G., Graverholt, B., Nordheim, L. V., & Reinar, L. M. (2012). *Jobb kunnskapsbasert: en arbeidsbok*. Oslo: Akribe.

Oddli, H. W. (2013). Forskningsbasert kunnskap i klinisk praksis. In K. Benum, E. D. Axelsen, & E. Hartmann (Eds.), *God psykoterapi: et integrert perspektiv* (pp. 293-315) . Oslo: Pax forlag AS.

Okamura, K. H., Hee, P. J., Jackson, D., & Nakamura, B. J. (2018). Furthering Our Understanding of Therapist Knowledge and Attitudinal Measurement in Youth Community Mental Health. *Administration and Policy in Mental Health, 45*(5), 699-708. doi:10.1007/s10488-018-0854-1

Forskrift om ledelse og kvalitetsforbedring i helsetjenesten (2016) Forskrift om ledelse og kvalitetsforbedring i helse- og omsorgstjenesten (FOR-2016-10-28-1250). Retriewed from https://lovdata.no/dokument/LTI/forskrift/2016-10-28-1250

Overington, L., Fitzpatrick, M., Hunsley, J., & Drapeau, M. (2015). Trainees' Experiences Using Progress Monitoring Measures. *Training and Education in Professional Psychology, 9*(3), 202-209. doi:10.1037/tep0000088

Pagoto, S. L., Spring, B., Coups, E. J., Mulvaney, S., Coutu, M. F., & Ozakinci, G. (2007). Barriers and facilitators of evidence-based practice perceived by behavioral science health professionals. *Journal of Clinical Psychology, 63*(7), 695-705. doi:Doi 10.1002/Jclp.20376

Park, A. L., Tsai, K. H., Guan, K., & Chorpita, B. F. (2018). Unintended Consequences of Evidence-Based Treatment Policy Reform: Is Implementation the Goal or the Strategy for Higher Quality Care? *Administration and Policy in Mental Health, 45*(4), 649-660. doi:10.1007/s10488-018-0853-2

Pinsof, W. M., Zinbarg, R. E., Lebow, J. L., Knobloch-Fedders, L. M., Durbin, E., Chambers, A., . . . Friedman, G. (2009). Laying the foundation for progress research in family, couple, and individual therapy: The development and psychometric features of the initial systemic therapy inventory of change. *Psychotherapy Research, 19*(2), 143-156. doi:10.1080/10503300802669973

Powell, B. J., Mandell, D. S., Hadley, T. R., Rubin, R. M., Evans, A. C., Hurford, M. O., & Beidas, R. S. (2017). Are general and strategic measures of organizational context and leadership associated with knowledge and attitudes toward evidence-based practices in public behavioral health settings? A cross-sectional observational study. *Implementation Science, 12*(1), 64. doi:10.1186/s13012-017-0593-9

Prescott, D. S., Maeschalck, C. L., & Miller, S. D. (2017). *Feedback-informed treatment in clinical practice: reaching for excellence.* Washington, DC: American Psychological Association.

Proctor, E., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G., Bunger, A., . . . Hensley, M. (2011). Outcomes for Implementation Research: Conceptual Distinctions, Measurement Challenges, and Research Agenda. *Administration and Policy in Mental Health and Mental Health Services Research, 38*(2), 65-76. doi:10.1007/s10488-010-0319-7

Proctor, E. K., Landsverk, J., Aarons, G., Chambers, D., Glisson, C., & Mittman, B. (2009). Implementation research in mental health services: an emerging science with conceptual, methodological, and training challenges. *Administration and Policy in Mental Health and Mental Health Services Research, 36*(1), 24-34. doi:10.1007/s10488-008-0197-4

Norsk Psykologforening (2007). Prinsipperklæring om evidensbasert psykologisk praksis. *Tidsskrift for Norsk Psykologforening, 9*, 1127–1128.

Rosenzweig, S. (1936). Some Implicit Common Factors in Diverse Methods of Psychotherapy. *American Journal of Orthopsychiatry, 6*(3), 412-415. doi:DOI 10.1111/j.1939-0025.1936.tb05248.x

Rønnestad, M. H. (2008). Evidensbasert praksis i psykologi. *Tidsskrift for Norsk Psykologforening, 45*(4), 444-454.

Satcher, D. (2000). Mental health: A report of the surgeon general - Executive summary. *Professional Psychology-Research and Practice, 31*(1), 5-13. doi:Doi 10.1037/0735-7028.31.1.5

Sharples, E., Qin, C., Goveas, V., Gondek, D., Deighton, J., Wolpert, M., & Edbrooke-Childs, J. (2017). A qualitative exploration of attitudes towards the use of outcome measures in child and adolescent mental health services. *Clinical Child Psychology and Psychiatry, 22*(2), 219-228. doi:10.1177/1359104516652929

Shimokawa, K., Lambert, M. J., & Smart, D. W. (2010). Enhancing treatment outcome of patients at risk of treatment failure: meta-analytic and mega-analytic review of a psychotherapy quality assurance system. *Journal of Consulting and Clinica Psychology, 78*(3), 298-311. doi:10.1037/a0019247

Simon, W., Lambert, M. J., Harris, M. W., Busath, G., & Vazquez, A. (2012). Providing patient progress information and clinical support tools to therapists: effects on patients at risk of treatment failure. *Psychotherapy Research, 22*(6), 638-647. doi:10.1080/10503307.2012.698918

Skogstad, A., Lindström, K., Skogstad, A., Knardahl, S., Elo, A.-L., Dallner, M., . . . Ørhede, E. (2001). *Brukerveiledning QPSNordic : generelt spørreskjema om psykologiske og sosiale faktorer i arbeidet*. Retrieved from https://www.qps-nordic.org/no/doc/Brukerveiledning_qpsnordic.pdf

Smith, M. L., & Glass, G. V. (1977). Meta-Analysis of Psychotherapy Outcome Studies. *American Psychologist, 32*(9), 752-760. doi:Doi 10.1037//0003-066x.32.9.752

Snibsøer, A. K., Olsen, N. R., Espehaug, B., & Nortvedt, M. W. (2012). Attitude and behaviour related to evidence-based practice. *Sykepleien, 3*(7), 234-241.

Sousa, V. D., & Rojjanasrirat, W. (2011). Translation, adaptation and validation of instruments or scales for use in cross-cultural health care research: a clear and user-friendly guideline. *Journal of Evaluation in Clinical Practice, 17*(2), 268-274. doi:10.1111/j.1365-2753.2010.01434.x

Stadnick, N. A., Lau, A. S., Barnett, M., Regan, J., Aarons, G. A., & Brookman-Frazee, L. (2017). Comparing Agency Leader and Therapist Perspectives on Evidence-Based Practices: Associations with Individual and Organizational Factors in a Mental Health System-Driven Implementation Effort. *Administration and Policy in Mental Health*, *45*(3), 447-461. doi:10.1007/s10488-017-0835-9

Stewart, R. E., Stirman, S. W., & Chambless, D. L. (2012). A qualitative investigation of practicing psychologists' attitudes toward research-informed practice: Implications for dissemination strategies. *Professional Psychology: Research and Practice, 43*(2), 100-109. doi:10.1037/a002569

Stiles, W. B., Barkham, M., Twigg, E., Mellor-Clark, J., & Cooper, M. (2006). Effectiveness of cognitive-behavioural, person-centred and psychodynamic therapies as practised in UK National Health Service settings. *Psychological Medicine, 36*(4), 555-566. doi:10.1017/S0033291706007136

Stormark, K. M., Heiervang, E., Heimann, M., Lundervold, A., & Gillberg, C. (2008). Predicting nonresponse bias from teacher ratings of mental health problems in primary school children. *Journal of Abnormal Child Psychology, 36*(3), 411-419. doi:10.1007/s10802-007-9187-3

Streiner D. L., & Norman G. R. (2014). *Health Measurement Scales: A practical guide to their development and use* (5th ed.). Oxford: Oxford University Press.

Streiner, D. L. (2003). Starting at the beginning: An introduction to coefficient alpha and internal consistency. *Journal of Personality Assessment, 80*(1), 99-103. doi:10.1207/S15327752jpa8001_18

Tessand, H. (2015, December 4). Drømmepakken. *Morgenbladet*. Retrieved from https://morgenbladet.no/ideer/2015/12/drommepakken

Thyer, B. A., & Pignotti, M. (2011). Evidence-Based Practices Do Not Exist. *Clinical Social Work Journal, 39*(4), 328-333. doi:10.1007/s10615-011-0358-x

Ulvestad, A. K., Henriksen, A. K., Tuseth, A.-G., & Fjeldstad, T. (2007). *Klienten - den glemte terapeut: brukerstyring i psykisk helsearbeid*. Oslo: Gyldendal Akademisk.

Van Horn, P. S., Green, K. E., & Martinussen, M. (2009). Survey Response Rates and Survey Administration in Counseling and Clinical Psychology A Meta-Analysis. *Educational and Psychological Measurement, 69*(3), 389-403. doi:10.1177/0013164408324462

Walsh, R. T. G., Teo, T., & Baydala, A. (2014). *A critical history and philosophy of psychology* Cambridge: Cambridge University Press.

Wampold, B. E. (2015). Routine outcome monitoring: Coming of age--With the usual developmental challenges. *Psychotherapy (Chic), 52*(4), 458-462. doi:10.1037/pst0000037

Wampold, B. E., & Imel, Z. E. (2015). *The Great Psychotherapy Debate. The Evidence for What Makes Psychotherapy Work* (2 ed.). New York: Routledge.

Wannstrom, I., Peterson, U., Asberg, M., Nygren, A., & Gustavsson, J. P. (2009). Can scales assessing psychological and social factors at work be used across different occupations? *Work, 34*(1), 3-11. doi:10.3233/WOR-2009-0897

Wannstrom, I., Peterson, U., Asberg, M., Nygren, A., & Gustavsson, J. P. (2009b). Psychometric properties of scales in the General Nordic Questionnaire for Psychological and Social Factors at Work (QPS): confirmatory factor analysis and prediction of certified long-term sickness absence. *Scandivaian Journal of Psychology, 50*(3), 231-244. doi:10.1111/j.1467-9450.2008.00697.x

Wisdom, J. P., Chor, K. H. B., Hoagwood, K. E., & Horwitz, S. M. (2014). Innovation Adoption: A Review of Theories and Constructs. *Administration and Policy in Mental Health and Mental Health Services Research, 41*(4), 480-502. doi:10.1007/s10488-013-0486-4

Woods, S. A., & West, M. A. (2010). *The psychology of work and organizations*. Hampshire: South-Western Cengage Learning.

Youn, S. J., Kraus, D. R., & Castonguay, L. G. (2012). The Treatment Outcome Package: Facilitating Practice and Clinically Relevant Research. *Psychotherapy, 49*(2), 115-122. doi:10.1037/a0027932

Paper I

Rye, M., Torres, E. M., Friborg, O., Skre, I., Aarons, G. A. (2017). The Evidence-based Practice Attitude Scale- 36 (EBPAS-36): a brief and pragmatic measure of attitudes to evidence-based practice validated in US and Norwegian samples. *Implementation Science,* 12(44). doi: 10.1186/s13012-017-0573-0.

Paper II

Rye, M., Friborg, O., & Skre, I. (2019). Attitudes of mental health providers towards adoption of evidence-based interventions: relationship to workplace, staff roles and social and psychological factors at work. *BMC Health Service Research*, 19:110. doi: 10.1186/s12913-019-3933-4.

Paper III

Rye, M., Rognmo, K., Aarons, G. A., & Skre, I. Attitudes to the use of routine outcome monitoring of psychological therapies among mental health providers: The EBPAS-ROM. Manuscript submitted to Administration and Policy in Mental Health and Mental Health Services Research, October 2018, under revision.

Appendix I

The Evidence-Based Practice Attitude Scale-50 (EBPAS-50), norsk oversettelse

EBPAS-50 (©Gregory A. Aarons, Ph.D.)
Evidence-Based Practice Attitude Scale-50 Item Version

Reference:

Aarons, G. A., Cafri, G., Lugo, L., Sawitzky, A. (2012). Expanding the domains of attitudes towards evidence-based practice. The Evidence Based Practice Attitude Scale - 50. Administration and Policy in Mental Health, 39, 331-340.

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De følgende spørsmål omhandler din innstilling til å ta i bruk nye terapier, intervensjoner eller behandlinger. Manualbasert terapi refererer til enhver intervensjon som har spesifikke retningslinjer og/eller komponenter som er beskrevet i en manual og/eller som skal følges på en strukturert/forutbestemt måte. Evidensbaserte metoder refererer til enhver intervensjon som støttes av empirisk forskning.

For spørsmål 1-8: Sett en ring rundt tallet som viser i hvilken grad du er enig med hver påstand ved hjelp av skalaen:

0	1	2	3	4
Helt uenig	**Litt enig**	**Moderat enig**	**Ganske enig**	**Helt enig**

1. Jeg liker å ta i bruk nye terapier/intervensjoner for å hjelpe pasientene mine……..... 0 1 2 3 4
2. Jeg er villig til å prøve nye terapier/intervensjoner selv om jeg da må følge en behandlingsmanual..... 0 1 2 3 4
3. Jeg vet bedre enn forskere hvordan jeg skal ta meg av pasientene mine…..……... 0 1 2 3 4
4. Jeg er villig til å bruke nye og forskjellige terapier/intervensjoner som er utviklet av forskere…..... 0 1 2 3 4
5. Forskningsbaserte behandlinger/intervensjoner er ikke klinisk nyttige…….……..... 0 1 2 3 4
6. Klinisk erfaring er viktigere enn bruk av manualbasert terapi/behandling……..... 0 1 2 3 4
7. Jeg ønsker ikke å bruke manualbaserte terapier/intervensjoner..... 0 1 2 3 4
8. Jeg vil prøve en ny terapi/intervensjon selv om den er svært forskjellig fra hva jeg er vant til å gjøre..... 0 1 2 3 4

For spørsmål 9-22: Hvis jeg fikk opplæring i en terapi eller intervensjon som var ny for meg, ville jeg tatt den i bruk gitt at:

9. den var intuitivt tiltalende.. ..... 0 1 2 3 4
10. den virket fornuftig..... 0 1 2 3 4
11. det ble pålagt av min leder 0 1 2 3 4
12. det ble pålagt av min arbeidsplass 0 1 2 3 4
13. det ble pålagt av myndighetene 0 1 2 3 4

Norsk oversettelse ved psykolog Marte Rye
Universitetet i Tromsø, Institutt for psykologi og Universitetssykehuset Nord-Norge HF
Godkjent av Gregory A. Aarons

14. den ble brukt av kollegaer som var fornøyd med den 0 1 2 3 4

15. jeg følte jeg hadde nok opplæring til å bruke den riktig 0 1 2 3 4

Hvis jeg fikk opplæring i en terapi eller intervensjon som var ny for meg, ville jeg tatt den i bruk gitt at:

16. pasientene mine ønsket det 0 1 2 3 4

17. jeg visste mer om hvordan pasientene mine likte den……..... 0 1 2 3 4

18. jeg visste den var velegnet for pasientene …..……..... 0 1 2 3 4

19. jeg hadde innflytelse på hvilken evidensbasert metode som skulle benyttes..... 0 1 2 3 4

20. jeg hadde innflytelse på hvordan jeg skulle bruke den evidensbaserte metoden..... 0 1 2 3 4

21. den passet med min kliniske tilnærming..... 0 1 2 3 4

22. den passet med min behandlingsfilosofi..... ..... 0 1 2 3 4

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For spørsmål 23-50: Sett en ring rundt tallet som viser i hvilken grad du er enig med hver påstand ved hjelp av skalaen:

0	1	2	3	4
Helt uenig	**Litt enig**	**Moderat enig**	**Ganske enig**	**Helt enig**

23. Evidensbaserte metoder er til hinder for å etablere kontakt med pasientene……..... 0 1 2 3 4

24. Evidensbaserte metoder gjør det vanskeligere å etablere en sterk behandlingsallianse..... 0 1 2 3 4

25. Evidensbaserte metoder er for forenklede..... 0 1 2 3 4

26. Evidensbaserte metoder er ikke nyttige for pasienter med sammensatte problem 0 1 2 3 4

27. Evidensbaserte metoder er ikke nyttige for familier med sammensatte problem ... …..... 0 1 2 3 4

28. Evidensbaserte metoder er ikke tilpasset den enkelte pasient..... 0 1 2 3 4

29. Evidensbaserte metoder har for snevert fokus 0 1 2 3 4

30. Jeg foretrekker å jobbe på egen hånd uten tilsyn..... 0 1 2 3 4

31. Jeg ønsker ikke at noen skal kikke over skulderen min mens jeg gjør jobben min..... 0 1 2 3 4

32. Det er unødvendig å holde øye med arbeidet mitt..... 0 1 2 3 4

33. Jeg behøver ikke å bli holdt øye med..... 0 1 2 3 4

34. Jeg er fornøyd med mine terapeutiske ferdigheter..... 0 1 2 3 4

35. Et positivt utfall i terapi er følge av kunst mer enn av vitenskap 0 1 2 3 4

Norsk oversettelse ved psykolog Marte Rye
Universitetet i Tromsø, Institutt for psykologi og Universitetssykehuset Nord-Norge HF
Godkjent av Gregory A. Aarons

Sett en ring rundt tallet som viser i hvilken grad du er enig med hver påstand ved hjelp av skalaen:

0	1	2	3	4
Helt uenig	**Litt enig**	**Moderat enig**	**Ganske enig**	**Helt enig**

36. Terapi er både kunst og vitenskap……..... 0 1 2 3 4
37. Min terapeutiske kompetanse er viktigere enn en bestemt tilnærming..... 0 1 2 3 4
38. Jeg har ikke tid til å lære noe nytt 0 1 2 3 4
39. Jeg klarer ikke å oppfylle alle mine forpliktelser..... 0 1 2 3 4
40. Jeg vet ikke hvordan jeg skal få passet inn bruken av evidensbaserte metoder i mine administrative oppgaver..... 0 1 2 3 4
41. Evidensbaserte metoder vil medføre for mye papirarbeid..... 0 1 2 3 4
42. Å lære en evidensbasert metode vil hjelpe meg å beholde jobben min..... 0 1 2 3 4
43. Å lære en evidensbasert metode vil hjelpe meg med å få en ny jobb..... 0 1 2 3 4
44. Å lære en evidensbasert metode vil gjøre det lettere å finne arbeid 0 1 2 3 4
45. Jeg vil lære en evidensbasert metode hvis det ble godkjent som videreutdanning …..... 0 1 2 3 4
46. Jeg vil lære en evidensbasert metode hvis det ble gitt opplæring…..……..... 0 1 2 3 4
47. Jeg vil lære en evidensbasert metode hvis det ble gitt kontinuerlig oppfølging..... 0 1 2 3 4
48. Jeg liker å få tilbakemelding på jobben jeg gjør 0 1 2 3 4
49. Å motta tilbakemelding hjelper meg å bli en bedre terapeut..... 0 1 2 3 4
50. Å motta veiledning hjelper meg til å bli en bedre terapeut 0 1 2 3 4

Norsk oversettelse ved psykolog Marte Rye
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Godkjent av Gregory A. Aarons

Appendix II

The Evidence-Based Practice Attitude Scale-36 (EBPAS-36), English version

Evidence-Based Practice Attitude Scale (EBPAS)© 36

Gregory A. Aarons
gaarons@ucsd.edu

The EBPAS assesses mental health provider attitudes toward adoption of innovation and evidence-based practices (EBPs) in mental health and social service settings. Items are presented on a 5-point Likert scale ranging from 0 "Not at All" to 4 "To a Very Great Extent".

Reference

Rye, M., Torres, E. M., Friborg, O., Skre, I., & Aarons, G. A. (2017). The Evidence-based Practice Attitude Scale- 36 (EBPAS-36): a brief and pragmatic measure of attitudes to evidence-based practice validated in US and Norwegian samples. *Implementation Science,* 12(44). doi: 10.1186/s13012-017-0573-0.

For information contact Gregory Aarons: gaarons@ucsd.edu

Evidence-Based Practice Attitude Scale (EBPAS)© 36

The following questions ask about your feelings about using new types of therapy, interventions, or treatments. Manualized therapy refers to any intervention that has specific guidelines and/or components that are outlined in a manual and/or that are to be followed in a structured/ predetermined way.

Please indicate the extent to which you agree with each item using the below scale.

0	1	2	3	4
Not at all	**Slight extent**	**Moderate extent**	**Great extent**	**Very great extent**

For questions 1-6: Circle the number indicating the extent to which you agree with each item using the following scale:

1. I like to use new types of therapy/interventions to help my clients 0 1 2 3 4

2. I am willing to try new types of therapy/interventions even if I have to follow a treatment manual..... 0 1 2 3 4

3. I am willing to use new and different types of therapy/interventions developed by researchers..... 0 1 2 3 4

4. Research based treatments/interventions are not clinically useful..... 0 1 2 3 4

5. Clinical experience is more important than using manualized therapy/treatment..... 0 1 2 3 4

6. I would not use manualized therapy/interventions..... 0 1 2 3 4

For questions 6-12: If you received training in a therapy or intervention that was new to you, how likely would you be to adopt it if:

7. it "made sense" to you?..... 0 1 2 3 4

8. it was required by your supervisor? 0 1 2 3 4

9. it was required by your agency?..... 0 1 2 3 4

10. it was required by your state? 0 1 2 3 4

11. it was being used by colleagues who were happy with it?..... 0 1 2 3 4

12. you felt you had enough training to use it correctly? 0 1 2 3 4

0 Not at all	1 Slight extent	2 Moderate extent	3 Great extent	4 Very great extent

For questions 13-15: If you received training in a therapy or intervention that was new to you, how likely would you be to adopt it if:

13. you knew it was right for your clients 0 1 2 3 4

14. you had a say in how you would use the evidence-based practice 0 1 2 3 4

15. it fit with your clinical approach 0 1 2 3 4

For questions 16-36: Circle the number indicating the extent to which you agree with each item using the following scale:

16. Evidence-based practice is not useful for clients with multiple problems 0 1 2 3 4

17. Evidence-based practice is not individualized treatment 0 1 2 3 4

18. Evidence-based practice is too narrowly focused 0 1 2 3 4

19. I prefer to work on my own without oversight 0 1 2 3 4

20. I do not want anyone looking over my shoulder while I provide services 0 1 2 3 4

21. My work does not need to be monitored. 0 1 2 3 4

22. A positive outcome in therapy is an art more than a science 0 1 2 3 4

23. Therapy is both an art and a science 0 1 2 3 4

24. My overall competence as a therapist is more important than a particular approach 0 1 2 3 4

25. I don't have time to learn anything new 0 1 2 3 4

26. I can't meet my other obligations 0 1 2 3 4

27. I don't know how to fit evidence-based practice into my administrative work 0 1 2 3 4

28. Learning an evidence-based practice will help me keep my job 0 1 2 3 4

29. Learning an evidence-based practice will help me get a new job 0 1 2 3 4

30. Learning an evidence-based practice will make it easier to find work 0 1 2 3 4

31. I would learn an evidence-based practice if continuing education credits were provided. 0 1 2 3 4

0 Not at all	1 Slight extent	2 Moderate extent	3 Great extent	4 Very great extent

32. I would learn an evidence-based practice if training were provided 0 1 2 3 4

33. I would learn an evidence-based practice if ongoing support was provided 0 1 2 3 4

34. I enjoy getting feedback on my job performance 0 1 2 3 4

35. Getting feedback helps me to be a better therapist/case manager 0 1 2 3 4

36. Getting supervision helps me to be a better therapist/case manager 0 1 2 3 4

Appendix III

The Evidence-Based Practice Attitude Scale-36 (EBPAS-36), Norwegian version

Evidence-Based Practice Attitude Scale (EBPAS)© 36

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Norsk oversettelse

EBPAS måler helsepersonell sin innstilling til å ta i bruk nye terapier, intervensjoner eller behandlinger. Hvert spørsmål besvares på en Likert-skala fra 0 "Helt uenig" til 4 "Helt enig".

Referanse

Rye, M., Torres, E. M., Friborg, O., Skre, I., & Aarons, G. A. (2017). The Evidence-based Practice Attitude Scale- 36 (EBPAS-36): a brief and pragmatic measure of attitudes to evidence-based practice validated in US and Norwegian samples. *Implementation Science,* 12(44).

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Evidence-Based Practice Attitude Scale (EBPAS)© 36

De følgende spørsmål omhandler din innstilling til å ta i bruk nye terapier, intervensjoner eller behandlinger. Manualbasert terapi refererer til enhver intervensjon som har spesifikke retningslinjer og/eller komponenter som er beskrevet i en manual og/eller som skal følges på en strukturert/forutbestemt måte. Evidensbaserte metoder refererer til enhver intervensjon som støttes av empirisk forskning.

Vennligst sett en ring rundt tallet som viser i hvilken grad du er enig med hver påstand ved hjelp av følgende skala:

0	1	2	3	4
Helt uenig	**Litt enig**	**Moderat enig**	**Ganske enig**	**Helt enig**

For spørsmål 1-6: Sett en ring rundt tallet som viser i hvilken grad du er enig med hver påstand ved hjelp av skalaen ovenfor:

1. Jeg liker å bruke nye former for terapi/intervensjoner for å hjelpe mine pasienter……..... … 0 1 2 3 4
2. Jeg er villig til å prøve nye former for terapi/intervensjoner selv om jeg da må følge en behandlingsmanual..... ... 0 1 2 3 4
3. Jeg er villig til å bruke nye og forskjellige former for terapi/intervensjoner som er utviklet av forskere…..... . .. 0 1 2 3 4
4. Forskningsbaserte behandlingsformer/intervensjoner er ikke klinisk nyttige……..... ..... 0 1 2 3 4
5. Klinisk erfaring er viktigere enn bruk av manualbasert terapi/behandling……..... 0 1 2 3 4
6. Jeg ville ikke brukt manualbaserte terapier/intervensjoner..... 0 1 2 3 4

For spørsmål 7-15: Hvis du fikk opplæring i en terapi eller intervensjon som var ny for deg, hvor sannsynlig er det at du ville ta den i bruk gitt at:

7. den virket fornuftig?..... 0 1 2 3 4
8. det ble pålagt av din leder?..... 0 1 2 3 4
9. det ble pålagt av din arbeidsplass? 0 1 2 3 4
10. det ble pålagt av myndighetene?..... ..... 0 1 2 3 4
11. den ble brukt av kollegaer som var fornøyd med den?..... 0 1 2 3 4
12. du følte du hadde nok opplæring til å bruke den riktig?..... ..... 0 1 2 3 4
13. du visste den var velegnet for dine pasienter……..... 0 1 2 3 4
14. du hadde innflytelse på hvordan du skulle bruke den evidensbaserte metoden..... 0 1 2 3 4
15. den passet med din kliniske tilnærming..... 0 1 2 3 4

Evidence-Based Practice Attitude Scale (EBPAS)© 36

0	1	2	3	4
Helt uenig	**Litt enig**	**Moderat enig**	**Ganske enig**	**Helt enig**

For spørsmål 16-36: Sett en ring rundt tallet som viser i hvilken grad du er enig med hver påstand ved hjelp av skalaen ovenfor:

16. Evidensbaserte metoder er ikke nyttige for pasienter med sammensatte problemer..... 0 1 2 3 4
17. Evidensbaserte metoder er ikke tilpasset den enkelte pasient..... 0 1 2 3 4
18. Evidensbaserte metoder har for snevert fokus 0 1 2 3 4
19. Jeg foretrekker å jobbe på egen hånd uten tilsyn..... 0 1 2 3 4
20. Jeg ønsker ikke at noen kikker over skulderen min mens jeg gjør jobben min..... 0 1 2 3 4
21. Det er unødvendig å holde øye med arbeidet mitt..... 0 1 2 3 4
22. Et positivt utfall i terapi er følge av kunst mer enn en vitenskap 0 1 2 3 4
23. Terapi er både kunst og vitenskap……..... 0 1 2 3 4
24. Min terapeutiske kompetanse er viktigere enn en bestemt tilnærming..... 0 1 2 3 4
25. Jeg har ikke tid til å lære noe nytt ..... … 0 1 2 3 4
26. Jeg kan ikke oppfylle mine andre plikter..... … 0 1 2 3 4
27. Jeg vet ikke hvordan jeg skal få passet inn evidensbaserte metoder i mine administrative oppgaver..... 0 1 2 3 4
28. Å lære en evidensbasert metode vil hjelpe meg å beholde jobben min..... 0 1 2 3 4
29. Å lære en evidensbasert metode vil hjelpe meg med å få en ny jobb..... 0 1 2 3 4
30. Å lære en evidensbasert metode vil gjøre det lettere å finne arbeid 0 1 2 3 4
31. Jeg vil lære en evidensbasert metode hvis det gir godkjente studiepoeng som etter-/ videreutdanning 0 1 2 3 4
32. Jeg ville lære en evidensbasert metode hvis det ble gitt opplæring…..…..... 0 1 2 3 4
33. Jeg ville lære en evidensbasert metode hvis det ble gitt kontinuerlig oppfølging..... 0 1 2 3 4
34. Jeg liker å få tilbakemelding på jobben jeg gjør 0 1 2 3 4
35. Å motta tilbakemelding hjelper meg å bli en bedre terapeut..... 0 1 2 3 4
36. Å motta veiledning hjelper meg til å bli en bedre terapeut 0 1 2 3 4

Appendix IV

The Evidence-Based Practice Attitude Scale-36 (EBPAS-36), English version, scoring instructions

EBPAS-36 (©Gregory A. Aarons, Ph.D.)
Evidence-Based Practice Attitude Scale
Items, Factor Loadings, Chronbach's Alphas, and Scoring

Reference:

Rye, M., Torres, E. M., Friborg, O., Skre, I., & Aarons, G. A. (2017). The Evidence-based Practice Attitude Scale- 36 (EBPAS-36): a brief and pragmatic measure of attitudes to evidence-based practice validated in US and Norwegian samples. *Implementation Science,* 12(44). doi: 10.1186/s13012-017-0573-0.

Item #	Scale	Factor Loading	Alpha
	Scale 1: Requirements		.91
8	Supervisor required	.89	
9	Agency required	.97	
10	State required	.77	
	Scale 2: Appeal		.75
7	Makes sense	.61	
11	Colleagues happy with therapy	.71	
12	Enough training	.83	
	Scale 3: Openness		.81
2	Will follow a treatment manual	.78	
3	Will try therapy/interventions developed by researchers	.81	
1	Like to use new therapy/interventions	.70	
	Scale 4: Divergence		.60
4	Research based treatments/interventions not useful	.59	
6	Would not use manualized therapy/interventions	.67	
5	Clinical experience more important	.47	
	Scale 5: Limitations		.90
16	Clients with multiple problems	.79	
17	Not individualized treatment	.92	
18	Too narrowly focused	.89	
	Scale 6: Fit		.77
13	Right for your clients	.69	
14	Had a say in how to use the evidence-based practice	.79	
15	Fit with your clinical approach	.73	
	Scale 7: Monitoring		.85
19	Work without oversight	.71	
20	Looking over my shoulder	.88	
21	My work does not need to be monitored	.85	

	Scale 8: Balance		.74
22	Positive outcome is an art	.73	
23	Therapy is an art and a science	.59	
24	Overall competence is more important	.76	
	Scale 9: Burden		.76
25	Don't have time to learn anything new	.57	
26	Can't meet other obligations	.81	
27	How to fit evidence-based practice in	.67	
	Scale 10: Job security		.82
28	Help me keep my job	.80	
29	Help me get a new job	.98	
30	Make it easier to find work	.61	
	Scale 11: Organizational Support		.84
31	Continuing education credits provided	.74	
32	Training provided	.86	
33	Ongoing support provided	.82	
	Scale 12: Feedback		.80
34	Enjoy feedback on performance	.69	
35	Feedback helps me to be better	.83	
36	Supervision helps me to be better	.78	
	EBPAS-36 Total Scale		.79

SCORING THE SCALES

The score for each subscale is created by computing a mean score for each set of items that load on a given subscale. For example, items 8, 9, and 10 constitute Requirements subscale. If there is missing data in your data set, computing means may be done allowing for one fewer items than make up the scale.

COMPUTING THE TOTAL SCORE

Only for the total score (not the individual scale scores), items from subscale 4 (Divergence), subscale 5 (Limitations), subscale 7 (Monitoring), subscale 8 (Balance) and subscale 9 (Burden) **must be reverse scored** and the subscale score recomputed. After the reverse scoring is complete, then a mean of the scale scores may be computed to yield the mean score for the total EBPAS-36 Item Score.

You may contact Dr. Aarons by email at: gaarons@ucsd.edu

Appendix V

The Evidence-based Practice Attitude Scale-36 (EBPAS-36), Norwegian version, scoring instructions

EBPAS-36 (©Gregory A. Aarons, Ph.D.) Evidence-Based Practice Attitude Scale

Norsk versjon

Referanse:

Rye, M., Torres, E. M., Friborg, O., Skre, I., & Aarons, G. A. (2017). The Evidence-based Practice Attitude Scale- 36 (EBPAS-36): a brief and pragmatic measure of attitudes to evidence-based practice validated in US and Norwegian samples. *Implementation Science,* 12(44). doi: 10.1186/s13012-017-0573-0.

Spørsmål #	Skala	Faktorladning	Alpha
	Skala 1: Requirements		.92
8	Pålagt fra leder	.93	
9	Pålagt fra arbeidsplass	1.00	
10	Pålagt fra myndigheter	.79	
	Skala 2: Appeal		.61
7	Virket fornuftig	.53	
11	Kollegaer fornøyd	.68	
12	Nok opplæring	.68	
	Skala 3: Openness		.76
2	Vil følge en behandlingsmanual	.86	
3	Vil prøve terapier/intervensjoner utviklet av forskere	.68	
1	Liker ta i bruk nye terapier/intervensjoner	.53	
	Skala 4: Divergence		.68
4	Forskningsbaserte ikke klinisk nyttige	.61	
6	Ønsker ikke bruke manualiserte terapier/intervensjoner	.76	
5	Klinisk erfaring viktigere	.66	
	Skala 5: Limitations		.85
16	Sammensatte problem	.74	
17	Ikke tilpasset pasient	.80	
18	Snevert fokus	.89	
	Skala 6: Fit		.62
13	Velegnet for pasient	.54	
14	Hvordan bruke metode	.67	
15	Passet med klinisk tilnærming	.62	
	Skala 7: Monitoring		0.84
19	Foretrekke jobbe uten tilsyn	.83	
20	Kikke over skulderen	.83	
21	Holde øye med arbeidet	.75	
	Skala 8: Balanse		.64
22	Positivt utfall er kunst	.60	
23	Terapi både kunst og vitenskap	.62	
24	Terapeutisk kompetanse er viktigere	.61	

Spørsmål #	Skala	Faktorladning	Alpha
	Skala 9: Burden		.74
25	Ikke tid lære nytt	.76	
26	Klarer ikke oppfylle forpliktelser	.70	
27	Hvordan passe inn	.61	
	Skala 10: Job security		.86
28	Hjelpe meg beholde jobben	.60	
29	Hjelpe meg få ny jobb	.95	
30	Lettere finne arbeid	.91	
	Skala 11: Organizational support		.84
31	Godkjent videreutdanning	.61	
32	Opplæring	.92	
33	Kontinuerlig oppfølging	.87	
	Skala 12: Feedback		.85
34	Liker tilbakemelding	.84	
35	Tilbakemelding hjelper bli bedre	.96	
36	Veiledning hjelper bli bedre	.72	
	Epbas-36 total skåre		**.86**

SCORING THE SCALES

The score for each subscale is created by computing a mean score for each set of items that load on a given subscale. For example, items 1, 2, and 3 constitute Requirements subscale. If there is missing data in your data set, computing means may be done allowing for one fewer items than make up the scale.

COMPUTING THE TOTAL SCORE

Only for the total score (not the individual scale scores), items from Divergence, Limitations, Monitoring, Competence and Burden subscales **must be reverse scored** and the subscale score recomputed. After the reverse scoring is complete, then a mean of the scale scores may be computed to yield the mean score for the total EBPAS-36 Item Score.

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Appendix VI

The Evidence-based Practice Attitude Scale – Routine Outcome monitoring (EBPAS-ROM), Norwegian version

EBPAS-Routine Outcome Monitoring version (EBPAS-ROM)

Innstilling til systematisk tilbakemelding

EBPAS-ROM omhandler din innstilling til å systematisk ta i bruk tilbakemeldingsverktøy for psykisk tilstand, for å få tilbakemeldinger på pasienters problematikk og endring gjennom behandlingsforløp. Tilbakemeldingsverktøy viser her til standaridserte måleinstrumenter for psykisk tilstand, hvor helsepersonell, eller pasientene selv, rapporterer tilstand på sentrale kjennetegn for psykisk helse. Verktøyene kan administreres på papir eller gjennom web- og programvarebaserte støttesystemer.

Hvert spørsmål besvares på en Likert-skala fra 0 "Helt uenig" til 4 "Helt enig".

Bakgrunn

Spørreinstrumentet er oversatt, tilpasset og videreutviklet fra the *Evidence-based Practice Attitude Scale (EBPAS) – 50 og 36* item versjoner (se referanser nedenfor). EBPAS måler helsepersonell sin innstilling til å lære seg evidensbaserte intervensjoner. EBPAS-ROM sine 9 subskalaer korresponderer med 9 av 12 subskalaer fra EBPAS.

Referanser

Aarons, G.A. (2004). Mental health provider attitudes toward adoption of evidence-based practice: the Evidence Based Practice Attitude Scale (EBPAS*). Mental Health Service Research, 6*(2), 61-74.

Aarons, G.A., et al. (2012). Expanding the domains of attitudes towards evidence-based practice: the evidence based practice attitude scale-50*. Administration and Policy in Mental Health and Mental Health Services Research, 39*(5), 331-340.

Rye, M., Torres, E. M., Friborg, O., Skre, I., & Aarons, Gregory A. (2017). The Evidence based Practice Attitude Scale- 36 (EBPAS-36): a brief and pragmatic measure of attitudes to evidence-based practice validated in US and Norwegian samples. *Implementation Science*, *12*(44).

Rye, M., Rognmo, K., Aarons, G. A., & Skre, I. Attitudes to the use of routine outcome monitoring of psychological therapies among mental health providers: The EBPAS-ROM. Submitted to Administration and Policy in Mental Health and Mental Health Services Research, October 2018, under review.

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EBPAS-Routine Outcome Monitoring version (EBPAS-ROM)

De følgende spørsmål omhandler din innstilling til å systematisk ta i bruk tilbakemeldingsverktøy for psykisk tilstand, for å få tilbakemeldinger på pasienters problematikk og endring gjennom behandlingsforløp. Tilbakemeldingsverktøy viser her til standaridserte måleinstrumenter for psykisk tilstand, hvor helsepersonell, eller pasientene selv, rapporterer tilstand på sentrale kjennetegn for psykisk helse. Verktøyene kan administreres på papir eller gjennom web- og programvarebaserte støttesystemer.

Vennligst sett en ring rundt tallet som viser i hvilken grad du er enig med hver påstand ved hjelp av følgende skala:

0	1	2	3	4
Helt uenig	**Litt enig**	**Moderat enig**	**Ganske enig**	**Helt enig**

For spørsmål 1-9: Hvis jeg fikk opplæring i bruk av tilbakemeldingsverktøy, ville jeg tatt det i bruk gitt at:

1. den virket fornuftig?..... 0 1 2 3 4
2. det ble pålagt av din leder?. 0 1 2 3 4
3. det ble pålagt av din arbeidsplass? 0 1 2 3 4
4. det ble pålagt av myndighetene?. 0 1 2 3 4
5. det ble brukt av kollegaer som var fornøyd med den?. 0 1 2 3 4
6. jeg følte jeg hadde nok opplæring til å bruke det riktig?..... 0 1 2 3 4
7. pasientene mine ønsket det 0 1 2 3 4
8. jeg hadde innflytelse på hvordan jeg skulle bruke tilbakemeldingsverktøyene 0 1 2 3 4
9. bruken av tilbakemeldingsverktøy passet med din kliniske tilnærming 0 1 2 3 4

For spørsmål 10-18: Sett en ring rundt tallet som viser i hvilken grad du er enig med hver påstand ved hjelp av skalaen ovenfor:

10. bruk av tilbakemeldingsverktøy er til hinder for å etablere kontakt med pasientene..... 0 1 2 3 4
11. tilbakemeldingsverktøy er ikke nyttige for pasienter med sammensatte problem 0 1 2 3 4
12. tilbakemeldingsverktøy har for snevert fokus 0 1 2 3 4
13. jeg foretrekker å jobbe på egen hånd uten tilsyn. 0 1 2 3 4
14. jeg ønsker ikke at noen skal kikke over skulderen min mens jeg gjør jobben min 0 1 2 3 4
15. det er unødvendig å holde øye med arbeidet mitt 0 1 2 3 4
16. jeg har ikke tid til å lære noe nytt..... 0 1 2 3 4
17. jeg vet ikke hvordan jeg skal få passet inn bruk av tilbakemeldingsverktøy i mine administrative oppgaver 0 1 2 34
18. bruk av tilbakemeldingsverktøy vil medføre for mye papirarbeid..... 0 1 2 3 4

EBPAS-Routine Outcome Monitoring version (EBPAS-ROM)

0	1	2	3	4
Helt uenig	**Litt enig**	**Moderat enig**	**Ganske enig**	**Helt enig**

For spørsmål 19-27: Sett en ring rundt tallet som viser i hvilken grad du er enig med hver påstand ved hjelp av skalaen ovenfor:

19. å lære å bruke tilbakemeldingsverktøy vil hjelpe meg å beholde jobben min. 0 1 2 3 4
20. å lære å bruke tilbakemeldingsverktøy vil hjelpe meg med å få en ny jobb 0 1 2 3 4
21. å lære å bruke tilbakemeldingsverktøy vil gjøre det lettere å finne arbeid.....0 1 2 3 4
22. Jeg vil lære å bruke tilbakemeldingsverktøy hvis det ble godkjent som videreutdanning....0 1 2 3 4
23. Jeg ville lære å bruke tilbakemeldingsverktøy hvis det ble gitt opplæring 0 1 2 3 4
24. Jeg ville lære å bruke tilbakemeldignsverktøy hvis det ble gitt kontinuerlig oppfølging 0 1 2 3 4
25. Jeg liker å få tilbakemelding på jobben jeg gjør 0 1 2 3 4
26. Å motta tilbakemelding hjelper meg å bli en bedre terapeut.....0 1 2 3 4
27. Å motta veiledning hjelper meg til å bli en bedre terapeut 0 1 2 3 4

Appendix VII

The Evidence-based Practice Attitude Scale – Routine Outcome monitoring (EBPAS-ROM), English

EBPAS-Routine Outcome Monitoring version (EBPAS-ROM)

The EBPAS-ROM assesses mental health provider attitudes towards systematically use of routine outcome monitoring (ROM), to get feedback on patient´s problems and change throughout the course of treatment. Routine outcome measures refer to standardized instruments assessing mental health status, in which health personal or patients themselves, report current status on common mental health issues. The instruments can be administered either on paper or through web- or software support systems

Items are presented on a 5-point Likert scale ranging from 0 “Not at All” to 4 “To a Very Great Extent”.

Background

The instrument is rephrased and adapted from the *Evidence-based Practice Attitude Scale (EBPAS) – 50 and 36* item versions (see references below), assessing mental health provider attitudes toward adoption of evidence based interventions in mental health and social service settings. The EBPAS-ROM has been validated in norwegian language (manuscript submitted). EBPAS-ROM measures 9 domains corresponding to 9 out of 12 EBPAS subscales.

References

Aarons, G.A. (2004). Mental health provider attitudes toward adoption of evidence-based practice: the Evidence Based Practice Attitude Scale (EBPAS*). Mental Health Service Research, 6*(2), 61-74.

Aarons, G.A., et al. (2012). Expanding the domains of attitudes towards evidence-based practice: the evidence based practice attitude scale-50*. Administration and Policy in Mental Health and Mental Health Services Research, 39*(5), 331-340.

Rye, M., Torres, E. M., Friborg, O., Skre, I., & Aarons, Gregory A. (2017). The Evidence based Practice Attitude Scale- 36 (EBPAS-36): a brief and pragmatic measure of attitudes to evidence-based practice validated in US and Norwegian samples. *Implementation Science*, *12*(44).

Rye, M., Rognmo, K., Aarons, G. A., & Skre, I. Attitudes to the use of routine outcome monitoring of psychological therapies among mental health providers: The EBPAS-ROM. Submitted to Administration and Policy in Mental Health and Mental Health Services Research, October 2018, under review.

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The following questions concerns your attitudes to systematically use routine outcome monitoring (ROM), to get feedback on patient´s problems and change throughout the course of treatment. Routine outcome measures refer to standardized instruments assessing mental health status, in which health personal or patients themselves, report current status on common mental health issues. The instruments can be administered either on paper or through web- or software support systems

Please indicate the extent to which you agree with each item using the below scale.

0	1	2	3	4
Not at all	**Slight extent**	**Moderate extent**	**Great extent**	**Very great extent**

For questions 1-9: If you received training in the use of ROM, how likely would you be to adopt it if:

1. it "made sense" to you?..... 0 1 2 3 4
2. it was required by your supervisor? ……0 1 2 3 4
3. it was required by your agency? …….0 1 2 3 4
4. it was required by your state? ……0 1 2 3 4
5. it was being used by colleagues who were happy with it? ……0 1 2 3 4
6. you felt you had enough training to use it correctly? ……... 0 1 2 3 4
7. your clients wanted it? …….. 0 1 2 3 4
8. you had a say in how you would use ROM …….. 0 1 2 3 4
9. the use of ROM fit with your clinical approach…….0 1 2 3 4

For questions 10-18: Circle the number indicating the extent to which you agree with each item using the following scale:

10. the use of ROM detracts from truly connecting with your clients.....0 1 2 3 4
11. ROM is not useful for clients with multiple problems ……. 0 1 2 3 4
12. Outcome measures are to narrowly focused 0 1 2 3 4
13. I prefer to work on my own without oversight…….. 0 1 2 3 4
14. I do not want anyone looking over my shoulder while I provide services…… 0 1 2 3 4
15. My work does not need to be monitored.....0 1 2 3 4
16. I don't have time to learn anything new..... .. 0 1 2 3 4
17. I don't know how to fit use of ROM into my administrative work.....0 1 2 3 4
18. The use of ROM will cause too much paperwork …….0 1 2 3 4

0	1	2	3	4
Not at all	**Slight extent**	**Moderate extent**	**Great extent**	**Very great extent**

For questions 19-27: Circle the number indicating the extent to which you agree with each item using the following scale:

19. Learning to use ROM will help me keep my job 0 1 2 3 4
20. Learning to use ROM will help me get a new job..... 0 1 2 3 4
21. Learning to use ROM will make it easier to find work……0 1 2 3 4
22. I would learn to use ROM if continuing education credits were provided. 0 1 2 3 4
23. I would learn to use ROM if training were provided 0 1 2 3 4
24. I would learn to use ROM if ongoing support was provided 0 1 2 3 4
25. I enjoy getting feedback on my job performance..... 0 1 2 3 4
26. Getting feedback helps me to be a better therapist/case manager ……..0 1 2 3 4
27. Getting supervision helps me to be a better therapist/case manager……...0 1 2 3 4

Appendix VIII

The Evidence-based Practice Attitude Scale – Routine Outcome monitoring (EBPAS-ROM), scoring instructions

EBPAS-Routine Outcome Monitoring version (EBPAS-ROM)

Innstilling til systematiske tilbakemeldinger

Referanse:

Rye, M., Rognmo, K., Aarons, G. A., & Skre, I. Attitudes to the use of routine outcome monitoring of psychological therapies among mental health providers: The EBPAS-ROM. Submitted to Administration and Policy in Mental Health and Mental Health Services Research, October 2018, under review.

Spørsmål #	Skala[1]	Faktorladning	Alpha
	Skala 1: Requirements		.93
3	Pålagt fra arbeidsplass *(Agency required)*	.98	
2	Pålagt fra leder *(Supervisor required)*	.96	
4	Pålagt fra myndigheter *(State required)*	.82	
	Skala 2: Appeal		.74
6	Nok opplæring *(Enough training)*	.83	
5	Kollegaer fornøyd *(Colleagues happy)*	.68	
1	Virket fornuftig *(Makes sense)*	.53	
	Skala 3: Limitations		.78
12	For snevert fokus *(Too narrowly focused)*	.79	
11	Sammensatte problem *(Clients with multiple problems)*	.73	
10	Etablere kontakt med pasientene *(Connecting with your clients)*	.69	
	Skala 4: Fit		.74
8	Hvordan bruke *(Had a say in how I would use)*	.78	
9	Passet med klinisk tilnærming *(Fit with your clinical approach)*	.70	
7	Pasientene ønsket det *(Clients wanted it)*	.51	
	Skala 5: Monitoring		.84
14	Kikke over skulderen *(Looking over my shoulder)*	.86	
13	Foretrekke jobbe uten tilsyn *(Prefer to work without oversight)*	.85	
15	Holde øye med arbeidet *(Work does not need to be monitored)*	.73	
	Skala 6: Burden		.70
18	Medføre for mye papirarbeid *(Cause to much paperwork)*	.80	
17	Hvordan passe inn *(How to fit ROM in)*	.76	
16	Ikke tid lære noe nytt *(Don`t have time to learn anything new)*	.42	
	Skala 7: Job security		.84
20	Hjelpe meg få ny jobb *(Help me get a new job)*	.91	
21	Lettere finne arbeid *(Make it easier to find work)*	.90	
19	Hjelpe meg beholde jobben *(Help me keep my job)*	.62	
	Skala 8: Organizational support		.79
23	Opplæring *(Training provided)*	.89	
24	Kontinuerlig oppfølging *(Ongoing support provided)*	.87	
22	Godkjent videreutdanning *(Education credits provided)*	.53	
	Skala 9: Feedback		.82
26	Tilbakemelding hjelper bli bedre *(Feedback helps me be better)*	.87	
25	Liker tilbakemelding *(Enjoy feedback on performance)*	.83	
27	Veiledning hjelper bli bedre *(Supervision helps me to be better)*	.60	
	Total scale		.85

[1]Forkortelser av item/Abbrivated items (english in italics)

SCORING

The scoring of the scales are identical to the EBPAS-50 and EBPAS-36, which EBPAS-ROM is adapted from, see references below:

Scoring the scales: The score for each subscale is created by computing a mean score for each set of items that load on a given subscale. For example, items 1, 2, and 3 constitute Requirements subscale. If there is missing data in your data set, computing means may be done allowing for one fewer items than make up the scale.

Computing the total score: Only for the total score (not the individual scale scores), items from Limitations, Monitoring and Burden subscales **must be reverse scored** and the subscale score recomputed. After the reverse scoring is complete, then a mean of the scale scores may be computed to yield the mean score for the total EBPAS-ROM Item Score.

Scoring reference:

Aarons, G.A., et al. (2012). Expanding the domains of attitudes towards evidence-based practice: the evidence based practice attitude scale-50. *Administration and Policy in Mental Health and Mental Health Services Research, 39*(5), 331-340.

Rye, M., Torres, E.M., Friborg, O., Skre, I., & Aarons, Gregory A. (2017). The Evidence based Practice Attitude Scale- 36 (EBPAS-36): a brief and pragmatic measure of attitudes to evidence-based practice validated in US and Norwegian samples. *Implementation Science*, 12:44.