

Clinical Psychologists' Experience of Cultivating Reflective
Practice in Trainee Clinical Psychologists during Supervision:
A qualitative study.

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Doctorate in Clinical Psychology

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Thesis Portfolio Abstract

Background: Reflective practice (RP) has long been regarded as a key component in lifelong personal and professional learning. Therefore, RP is a core component of supervision in the guidelines set out by professional bodies and registration authorities. Despite the high recognition for its importance, assessment and promotion of RP may be inconsistent within clinical psychology training. This may be due to a lack of a unified definition and hence assessment of RP. Since the above are required to effectively promote RP, this thesis aimed to: 1) identify existing RP assessment tools via a systematic review, and 2) identify themes associated with the promotion of RP during clinical psychology training.

Design: This thesis consists of a systematic review of RP assessment tools for healthcare professionals, as well as an empirical study exploring clinical psychologists' experience in cultivating RP in trainee clinical psychologists during supervision.

Results: The systematic review identified 18 papers and nine assessment tools were identified. Among them, the Reflective Questionnaire (RQ), and Self-Reflection and Insight Scale (SRIS) were more frequently used. The empirical study generated six themes that captured participants' experiences in the promotion of RP during supervision, namely: 1) interpersonal aspects of supervision, 2) collaboration and trainees' engagement, 3) developmental process of RP, 4) conscious attempts to promote reflection, 5) awareness of potential barriers to reflection, and 6) psychological models and RP. Both the systematic review and empirical study outlined the lack of an agreed definition of RP construct.

Conclusion: The systematic review recommended that the RQ and SRIS could be used to assess reflective practice within healthcare settings. The empirical study outlined the themes participants found useful to enhance trainees' engagement in

reflective practice. Given the lack of a unified RP construct, there is an urgent need for more studies and consensus among professional bodies and authorities.

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Summary of Thesis Portfolio

This thesis portfolio was undertaken as a partial fulfilment of the researcher's training for a Doctorate in Clinical Psychology at the University of East Anglia. This thesis portfolio comprises two main chapters, which are systematic review and empirical study.

Chapter One. This chapter consists of a systematic review of reflective practice instruments for healthcare professionals. With the use of narrative synthesis, this review aimed to identify and systematically review existing self-rating measures that assess reflective practice within healthcare professionals. The research gaps and implications for practice were further explored in the review.

Chapter Two. This is a brief bridging chapter that summarised the key findings of the systematic review and provided the link between the systematic review and empirical study.

Chapter Three. This chapter consists of an empirical study using thematic analysis (TA) to explore the experiences of clinical psychologists in developing reflective skills in trainee clinical psychologists. Some verbatim extracts were presented with respective themes and subthemes to represent the unique individual experiences of the participants.

Chapter Four: This chapter summarises key findings from the systematic review and the empirical study. These findings were discussed in a broader aspect of the use and promotion of reflective practice. The researcher's reflection was presented following a critical evaluation of the quality of both the systematic review and the empirical study.

Chapter One

Systematic Review

A Systematic Review of Reflective Practice Questionnaires and Scales
for Healthcare Professionals: A narrative synthesis

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**A Systematic Review of Reflective Practice Questionnaires and
Scales for Healthcare Professionals: A narrative synthesis**

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A Systematic Review of Reflective Practice Questionnaires and Scales for Healthcare Professionals: A narrative synthesis

Abstract

Reflective Practice (RP), as termed by Schön is a crucial component of personal and professional learning. RP is regarded as a way that professionals learn from experience to understand and enhance their practice by responding appropriately to self-reflection. Despite playing a crucial role in healthcare settings, there is little agreement on how to assess RP. This study aims to systematically review self-rating instruments that assess RP in healthcare professionals. Articles assessing RP in healthcare professions, published in English between 1998 and 2018 from PubMed, CINAHL, and PsychInfo databases, were considered for inclusion. Peer-reviewed journal articles that discussed or used a self-rating instrument to measure RP were included. A total of 18 papers were appraised, the strengths and weaknesses of the measures were discussed in accordance with an adapted critical appraisal checklist. In general, all self-report instruments included in this review were potentially generalisable to healthcare professionals or health science programmes with some adaptation. Given the limited evidence for other measurement scales, the Reflective Questionnaire and Self-Reflection and Insight Scale are recommended for measuring RP within healthcare settings. Future research developing a standardised tool for the review of mixed-method, heterogeneous, questionnaire studies is strongly recommended.

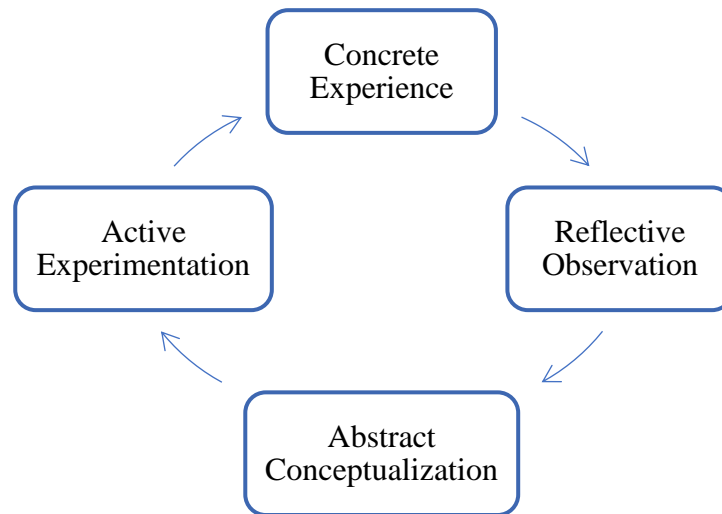
Keywords: RP; reflection; measure; questionnaire; scale; healthcare professional

Introduction

Reflection or reflective practice (RP) is a crucial component of lifelong personal and professional learning (Nguyen, Fernandez, Karsenti, & Charlin, 2014). Dewey (as cited in Finlay, 2008) stated that reflective thinking encourages reflective action which involves careful and critical consideration of knowledge by moving away from conventional thinking or action. For Dewey, individuals learn through both thinking and doing (as cited in Finlay, 2008); they do not merely think about what they are doing but also the rationale for their actions. The concept of reflection has gained attention from researchers and professionals in various disciplines, including education, medicine, nursing, social work, and other health science professions (Brown, Fenge, & Young, 2005; Nguyen et al., 2014; Tummons, 2011).

Kolb (1984) proposed the well-known experiential learning cycle which emphasises the role of reflection in learning (Figure 1.1). According to Kolb's framework, reflection has a vital role in changing a person's concrete experiences to abstract meanings that are actively tested to form new experiences. Effective learning is seen when an individual progresses through a four-stage cycle. This begins with an individual having a concrete experience or encounter that leads to an observation. A reflection on the observation leads to the formation of new ideas (or a modification of an existing abstract concept) which can be applied to future situations resulting in new experiences.

Figure 1.1. Kolb's (1984) Experiential Learning Cycle. Adapted from “Frameworks Supporting RP” in J. Scaife, 2010, *Supervising the Reflective Practitioner*, p.26.



Reflection became the focus of further attention when (Schön, 1983) coined the term ‘Reflective Practice’. For Schön (1983), the person on the high ground can see a range of possible routes and plan a suitable path to get to the destination. Someone else starting from the lower ground is unable to do the same. This person from the swampy lowlands learns from their mistakes through trial and error, enabling them to navigate through the swamp, which is regarded as a reflective approach by Schön. Thus, Schön reasoned that critical reflection in practice with other forms of scientific evidence is crucial in decision making because professionals are often required to make quick and complex decisions without being able to refer to available resources (cited in Fisher, Chew, & Leow, 2015).

Literature has been indicative of more interest in RP (Harford & MacRuairc, 2008; Mann, Gordon, & MacLeod, 2009; Ruch, 2005). In general, RP is regarded as a way that professionals learn from experience to enhance their practice (Jasper, 2013) by responding appropriately to self-reflection (Neville, 2018). It is also a way to explore the norms and suppositions of professional practice that could not be achieved by training (Tummons, 2011). To achieve greater professional expertise and enhance patient care (Cooper & Wieckowski, 2017), the demonstration of RP is

necessitated by various health professional accrediting bodies such as Health and Care Professions Council (HCPC, 2015), British Psychological Society (BPS, 2017), American Psychological Association (APA; cited in Cooper & Wieckowski, 2017), General Medical Council, and Nursing and Midwifery Council (cited in Neville, 2018).

Despite the importance placed on RP in professional development and education, there has been little consensus on the definition of reflection (Bassot, 2015; Fisher et al., 2015; Nguyen et al., 2014). For instance, Embo, Driessen, Valcke, & Van Der Vleuten (2014) suggested that “Reflection generally relates to review, interpretation and understanding of experiences to guide present and future behaviour” (p.602). Nguyen and colleagues (2014) believe that the lack of shared understanding of reflection has hampered the development of practical methods to analyse, teach and assess RP. In order to enhance mutual understanding of reflection, Nguyen and colleagues (2014) operationally defined reflection as “The process of engaging self (S) in attentive, critical, exploratory and iterative (ACEI) interaction with one’s thoughts and actions (TA), and their underlying conceptual frame (CF), with a view to changing them and a view on the change (VC) itself” (p.1176). Given that RP is fluid and contingent in nature (Tummons, 2011), it remains a complex concept to be pragmatically operationalised.

Health professionals are expected to have the capacity to reflect upon their clinical work to sustain professional growth (O’Reilly & Milner, 2015). However, there are only a limited number of instruments that have been developed to assess RP. Due to the lack of a unified definition of RP, the inherent implication is a similar lack of unified assessment. Boenink, Oderwald, De Jonge, Van Tilburg, and Smal (2004) outlined scales to measure different aspects of reflection. These include moral reasoning, teaching and learning, as well as professional competency.

Although the existing instruments claim to measure self-reflection or RP, they were developed for different purposes. For instance, some scales target the assessment of reflective learning process (Phan, 2009; Sobral, 2001), whereas others emphasised the level of involvement in RP (Aukes, Geertsma, Cohen-Schotanus, Zwierstra, & Slaets, 2007; Grant, Franklin, & Langford, 2002; Priddis & Rogers, 2018).

RP is argued to play a crucial role in healthcare relating to the quality of medical care (Renner et al., 2014), professionalism (Roberts & Stark, 2008), clinical reasoning, and patient safety (cited in Andersen, O'Neill, Gormsen, Hvidberg, & Morcke, 2014) yet there is little agreement on how to measure or assess this construct. There is comparatively little evidence-based research focusing on the measurement of RP and existing research that has been published has not been the subject of a systematic review. A systematic review of existing research would enable an appraisal of the quality of existing tools and promote the integration of a potentially disparate body of literature. To the best of the researchers' knowledge, to date, this has not been undertaken. The current paper, therefore, aims to identify and systematically review self-rating instruments that assess RP within healthcare professionals.

Research Questions

What self-report questionnaires and scales are available to assess reflective practice in qualified healthcare professionals?

Methodology

Data Sources and Searches

In order to review the published literature and the assessment of RP in healthcare professions, the PubMed, CINAHL, and PsychInfo databases were searched using the '*' symbol (wildcard) to replace some letters in keywords. Search terms included "refletive practice", reflective, reflection*, self-reflection, self-reflective,

self-awareness, self-perception*; measure*, assess*, scale, questionnaire; “healthcare professional*”, “health care professional*”, “healthcare worker*”, “health care worker*”, nurse*, medical doctor*, doctor*, “occupational therap*”, “physical therap*”, physiotherap*, “social worker*”, dietitian*, dietician*, “speech and language therap*”, “speech therap*”, psychology, and psychologist* . These were used to cover the essential factors in accordance with the research question.

Eligibility Criteria

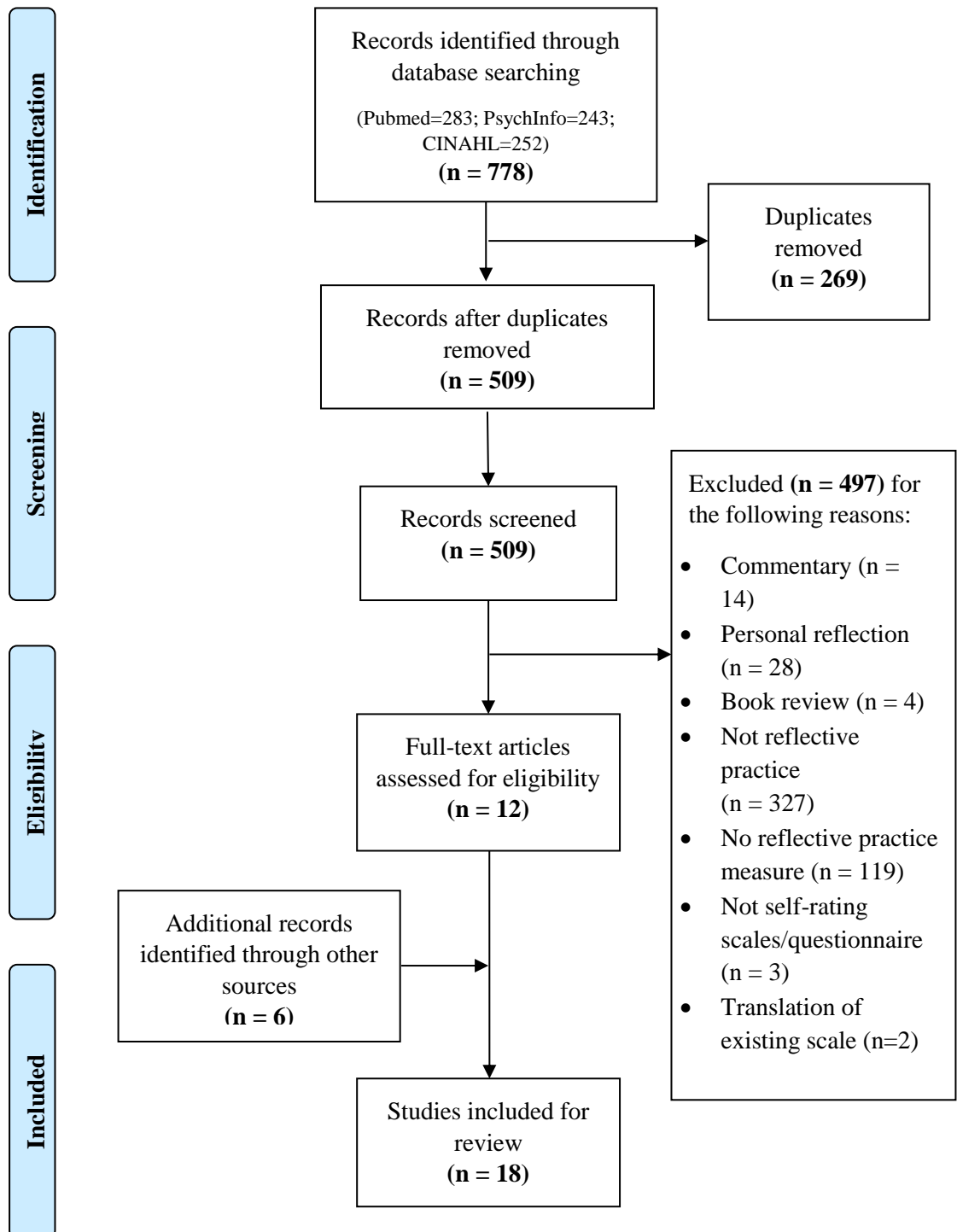
The titles and abstracts of identified studies were screened by the lead reviewer (S.M.) according to the inclusion and exclusion criteria. Both electronic and hand searches were limited to the following inclusion criteria: 1) journal articles published in English language, 2) peer reviewed articles, 3) papers published between 1998 to 2018, 4) articles that discussed or used a self-rating instrument to measure RP, and 5) the instrument is used to measure RP in healthcare professionals. Exclusion criteria included 1) commentaries, 2) personal reviews or reflections, 3) book reviews, 4) papers that did not describe RP or the use of self-rating instrument for RP, and 5) a translation of an existing scale into another language.

Study Selection

The initial search identified a total of 778 journal articles from three databases. After duplicates were removed, 509 studies remained from the electronic search. These articles were screened for suitability with reference to the inclusion and exclusion criteria stated in the above section. Of the 509 studies, articles that did not meet the inclusion criteria were removed (n= 497). In addition, the lead reviewer hand-searched the reference lists of the identified papers (n=12) with a view to identifying additional records and from this hand searching an additional six articles were found and included in this review. A second reviewer (P.F.) independently reviewed the full-text of the remaining studies against both inclusion and exclusion criteria, and no

discrepancies arose. This resulted in the final inclusion of 18 papers for full-text review and critical appraisal. A PRISMA flowchart (see Figure 1.2) illustrates the screening process for this review.

Figure 1.2. PRISMA flowchart



Data Extraction and Quality Assessment

Information extracted from the 18 papers including authors, study location, study population, sample size, study design, measures used, and brief summary of results are shown in Table 1.1. The study participants were mainly healthcare professionals or healthcare students, and the sample size ranged from 11 to 1664 participants.

Cross-sectional surveys were predominantly used in these studies with a mixture of cohort studies and multimethod studies. Five papers described the use of Self-Reflection and Insight Scale (SRIS) and Reflection Questionnaire (RQ) respectively, and two studies used the Reflection-in-Learning Scale (RLS). Other instruments used in these studies included: Reflective Practice Questionnaire (RPQ, N=1), Reflective Learning and Interaction Model Questionnaire (RLIMQ, N=1), Groningen Reflection Ability Scale (GRAS, N=1), Critically Reflective Work Behaviour (CRWB, N=1), 10-item scale (N=1), and 37-item scale (N=1).

All relevant data were then extracted from the selected papers by the lead reviewer and critically appraised. In order to ensure the quality of selected papers be comprehensively appraised and reported, a critical appraisal checklist would be used to evaluate various aspects of a questionnaire research. Given the absence of a robust single checklist that could be used to critically appraise heterogeneous studies with diverse study designs and different questionnaire types, an adapted version of three measures: Critical Appraisal of a Questionnaire Study (Roever, 2016), the Critical Appraisal Checklist for a Questionnaire Study (National Institute for Health and Care Excellence, NICE clinical guideline 143, 2012; p.143-144), and the Critical Appraisal of Qualitative Studies (Centre for Evidence Based Medicine, n.d.; see Appendix A, B & C) criteria were initially trialled and used to assess the papers. To critically appraise different aspects of multimethod studies, 24 items were selected from these measures. This task was carried out with inputs from the second reviewer

(S.C.), and the discussion focused on the issue of adequate coverage in the following domains: Research aim and study design; sampling; format; piloting; psychometric properties; distribution, administration and response; analysis; discussion and conclusion; and ethics.

Data Synthesis and Analysis

Given the heterogeneity of the studies included in this analysis, particularly with regard to the measures used, a narrative synthesis is provided. The quality of the 18 papers was appraised by the lead reviewer according to the 24-item checklist (Appendix D). A second rater (S.C.) rated 20% of the papers and an agreement was reached for all ratings with one exception; which was resolved via discussion to achieve 100% agreement for the final ratings. A summary table of quality appraisal measure and ratings is shown in Appendix D.

Results

The results of the review are presented as narrative synthesis given the heterogeneity of study design. Two-thirds of the studies are of high quality and the remaining are rated to have acceptable quality. The characteristics of all 18 papers and findings extracted from the individual studies are briefly outlined in this section (see Table 1.1). This is followed by a synthesis of different instruments used to measure reflection or RP and the quality of the measures used.

Narrative Synthesis

One-third of the included papers (study 1, 4, 6, 8, 13 and 18) were validation studies, four papers (study 2, 7, 10 and 14) aimed to explore an integrated reflective model in a specific study context, five papers (study 3, 5, 11, 12 and 17) attempted to investigate the relationship between reflection and other variables, and three remaining papers studied the effectiveness of a programme or a tool on reflection. Of the 18 studies, 10 studies used convenience sampling and targeted healthcare

students (i.e., psychology, occupational and physical therapy, medical, nursing, and dietetic). Nonetheless, every instrument used by the respective studies can be adapted and used for a variety of healthcare professionals. In terms of study design, all papers included in this review conducted a survey study in either cross-sectional or longitudinal study design. Appropriate methodology was applied for each study included in this review, e.g. validation studies to check the psychometric properties of the instrument used.

Measures

From the studies included in this review, nine measures of RP or self-reflection were identified. The RQ and SRIS were the more frequently used measures investigated and these would be appraised together with a brief description of the other measures identified in the review. The strengths and weaknesses of the questionnaire studies were outlined (see Appendix E).

Reflective Questionnaire (RQ)

Kember and colleagues (2000) developed a user-friendly and readily interpretable, four-scale, 16-item questionnaire to measure the extent to which health sciences students engage in reflective thinking during their educational programme. The RQ was developed based primarily on Mezirow's reflective thinking framework (i.e., Habitual Action, Understanding, Reflection, and Critical Reflection; as cited in Kember et al., 2000). Mezirow (as cited in Kember et al., 2000), described *Habitual Action* as a frequently used, learnt action which has become an automatic activity that requires little conscious thought such as riding a bicycle or typing on a keyboard. *Understanding* is regarded as a type of thinking that makes use of existing knowledge without trying to appraise that information (e.g., 'learning from books' that takes place in schools or universities). *Reflection* is interpreted as 'validity testing' that involves the review of assumptions on the process of content to further

make sense of individuals' experience. Finally *Critical Reflection*, is described as a higher level of reflective thinking which involves awareness of the way individuals perceive, think, feel, or behave in a certain way.

In the development of the RQ, the respondents were asked to rate on a 5-point Likert scale, ranging from A (definitely agree) to E (definitely disagree), higher scores indicated greater agreement with engaging in the specific reflective thinking each scale assessed. The RQ is primarily used as a tool to examine the effect of the teaching and learning environment on reflective thinking. The authors also proposed that the instrument could be used to explore the study patterns of individual students, to investigate the inter-relationship between reflective thinking and other constructs, and to compare groups of students that were subjected to different treatments or conditions.

The psychometric properties of the RQ, (Kember et al., 2000) had satisfactory reliability for each scale (α ranging from 0.62 to 0.76). Good validity was also established through confirmatory factor analysis and a good fit to the intended factor structure ($\chi^2 = 179.3$, $df = 100$) with a comparative fit index (CFI = 0.903) was shown. As the RQ was initially developed and designed for use in academic settings, some modification would be required if it is to be used to measure the level of reflective thinking in healthcare professional practices (Kember et al., 2000).

Self-Reflection and Insight Scale (SRIS)

The SRIS (Grant et al., 2002) was developed to examine levels of self-reflection and insight. The authors believe that self-reflection is a metacognitive factor that contributes to a purposeful and directed change, hence they developed the SRIS to inform individuals' performance by monitoring their reflective thinking and insight. It is a self-administered, 20-item questionnaire which is categorised into three

subscales, namely Engagement in Self-Reflection, Need for Self-Reflection, and Insight. Respondents are required to rate items on a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree), with higher scores indicating a higher level of self-reflection and insight. The SRIS was originally designed and constructed to be an advance on the Private Self-Consciousness Scale (PrSCS; as cited in Grant et al., 2002), and was widely used to investigate the relationship between self-reflection and insight with other variables (in study 8, 9 and 10).

Good internal consistency ($\alpha = 0.91$ for self-reflection; $\alpha = 0.87$ for insight), test-retest reliability, and convergent and discriminant validity was reported (Grant et al., 2002; Roberts & Starks, 2008). Although the SRIS has been validated with a small and homogeneous sample, it has been adapted for use by various healthcare disciplines (study 7, 8, 9 and 10). It is therefore expected that the SRIS can be adapted and generalised to suit the research context for other healthcare professionals.

Other measures

There were seven other self-rating instruments discussed in the remaining eight studies. Two studies discussed about Reflective-in-Learning Scale (RLS), and the remaining studies each discussed a reflective measure such as Reflective Practice Questionnaire (RPQ), Reflective Learning and Interaction Model Questionnaire (RLIMQ), Groningen Reflection Ability Scale (GRAS), Critically Reflective Work Behaviour (CRWB), 10-item scale (created during the research project MIRROR, as cited in Renner et al., 2014), and a 37-item scale (i.e., 21, 5-point Likert scale; 13 open- and three closed-ended free test questions; as cited in O'Reilly & Milner, 2015). Similar to the RQ and SRIS, these scales were validated or used within an education or healthcare population. Some measures focused on self-reflection and learning (RLS and GRAS) whereas others aimed to understand the relationship

between RP and other constructs (CRWB and RPQ), and to investigate the effectiveness of technology-based reflective tools (RLIQ, 10-item scale and 37-item scales). The reported psychometric properties of each instrument are reported in Table 1.1. The RQ and SRIS which were more extensively used and had been evaluated in previous research with different populations are likely to be the most useful in measuring RP within healthcare settings.

Table 1.1. Characteristics and Results of Individual Study

	Author(s), Date & Country	Population & Sample Size (N)	Type of Study and Design	Measures used (psychometric properties)	Results of Individual Study
1	Kember et al. (2000), Hong Kong	Under- and postgraduate students from Health Science Faculty (N = 303)	Cross-Sectional Survey	RQ (Satisfactory reliability and a good fit of 4-factor structure)	The RQ was developed and validated to measure the level of reflective thinking. A principal use of the RQ is to examine the effects of the teaching and learning environment on reflective thinking. Modification is required if it is intended to be used in various professional practices.
2	Phan (2009), Fiji	Undergraduate educational psychology students (N = 347)	Cross-Sectional Survey	RQ (Not stated)	The RQ was used to test a conceptual model comprising deep processing strategies, effort, mastery and performance-approach goals, reflection, and critical thinking. The evidence suggested that mastery and performance-approach goals, reflection, and critical thinking are the determinants of students' learning and academic achievement.
3	Dunn & Musolino (2011), United States	Occupational and physical therapy graduate students (N = 125)	Online Survey, Cohort Study	RQ (Satisfactory construct validity, partially for internal consistency)	The reliability and responsiveness of RQ and Revised Study Process Questionnaire (RSPQ-2F) were assessed. The stability and responsiveness of both instruments for assessing changes in reflective thinking and learning approaches was supported.

4	Lethbridge, Andrusyszyn, Iwasiw, Laschinger, & Fernando (2013), Canada	Baccalaureate nursing students (N = 538)	Survey, Cohort Study	RQ (Satisfactory internal consistency and construct validity)	This study examined the psychometric properties of the RQ. The 'Understanding' and 'Reflection' dimensions were the most commonly used approach among the four-level reflective skills. Reliability and validity of RQ were established.
5	Tricio, Woolford, & Escudier (2015), United Kingdom	Dentistry students (N = 324)	Cross-Sectional online Survey	RQ (Satisfactory internal consistency, construct validity)	The study explored the levels of reflection and the relationship between reflection and academic performance. Students with more experience demonstrated higher reflective habits. Most engaged in 'Understanding' and 'Reflection' approaches, and those with high 'Understanding' score tend to have good reflective scores.
6	Grant et al. (2002), Australia	Undergraduate psychology students (N = 260 + 28 + 121)	Cross-Sectional and Cohort Survey	SRIS (Good internal consistency, test-retest reliability, and construct validity)	The SRIS was developed and validated to measure self-reflection and insight. The study found an ambiguous relationship between self-reflection and insight scale, and that journal keeping is not correlated with increased self-reflection and insight. Two types of self-reflection: solution-focused and self-focused were discussed.
7	Lowe, Rappolt, Jaglal, & Macdonald (2007), Canada	Occupational therapists (N = 41 + 33 + 10)	Multimethod Cohort Study	SRIS (Not applicable, cited Grant's, 2002 study)	The study examined the putting into practice reflection learnt from a short course. Two models were generated with the use of the SRIS and Commitment to Change (CTC) statements. Participants were found using reflection pre-, during, and post-course, and this was associated with the course, practice context and the individual factor.

8	Roberts & Stark (2008), United Kingdom	Medical students (N = 1214)	Cross-Sectional Survey Study	SRIS (Good internal consistency and construct validity)	The SRIS was utilised to explore self-reflection and insight in the context of purposeful, self-regulated changes in professional behaviours. Self-reflection was related to the need for positive role models whereas insight was related to the need for reflection or motivation. Attending to feelings was found to be an important, integral aspect of self-reflection and insight.
9	Pai (2015), Taiwan	Nursing students (N = 245)	Correlational Cohort Study	SRIS (Good content validity, internal consistency)	The SRIS, was used to design and evaluate a self-reflection practice programme that incorporated clinical competence, self-reflection, and stress. The self-reflection learning exercise helped improve self-reflection and perceived practice stress that affect clinical competence.
10	Pai (2016), Taiwan	Nursing students (N = 80)	Correlational Cohort Study	SRIS (Satisfactory to good internal reliability and construct validity)	The SRIS, was used to develop an integrated model exploring the interrelationship among anxiety, self-reflection, and learning effectiveness. The study found that self-reflection with insight and clinical experience are helpful in deflecting anxiety.
11	Sobral (2000), Brazil	Medical students (N = 103)	Survey, Cohort Study	RLS (Good internal consistency, moderate temporal stability, good construct validity)	The 10-item version RLS was used to investigate the reflection-in-learning profile of medical students' clinical apprenticeship. The level of reflection-in-learning was significantly correlated with self-perceived competence. The study also reported that greater effort of reflection was associated with more positive learning experience.

12	Sobral (2001), Brazil	Medical students (N = 196)	Survey, Cohort Study	RLS (Good internal consistency, moderate temporal stability)	The 14-item version RLS was used to explore the relationship between reflection and study approaches, perceived learning outcome, and academic achievement. Findings suggested that high achievers tend to show stability or positive change in the RLS with stronger personal efficacy in self-reflection. The RLS is a useful tool in appraising the dimensions of learning processing and self-monitoring in students' reflective profile.
13	Aukes et al. (2007), Netherlands	Medical students (N = 1664)	Multimethod Cross- Sectional Study	GRAS (Satisfactory internal consistency, content validity)	The GRAS was developed to measure the personal reflection ability. The scale consists of three aspects of personal reflection: Self-reflection, Empathetic Reflection and Reflective Communication. GRAS can be used in combination with other scales to cover the richness of reflection.
14	Groot et al. (2012), Netherlands	Veterinarians (N = 1290)	Cross- Sectional Survey Study	CRWB (Internal consistency and validity established)	The study suggested that Perceived for Lifelong Learning, but not workplace quality, predicts CRWB. Four factors that reflect on the CRWB model are 1) Individual CRWB, 2) CRWB social interaction, 3) cross-checking of information, and 4) openness to new findings.
15	Levine (2014), United States	Nurse managers (N = 11)	Cross- Sectional online Survey	RLIMQ (Reliability and validity established)	The RLIMQ was used to evaluate the effectiveness of blogging in nursing leadership. The blog group and the traditional learning group did not differ significantly on reflective learning dimensions, the mean scores from both groups showed a reflective experience.

16	Renner et al. (2014), Germany	Neurological hospital staff (N = 334)	Survey, Cohort Study	10-item scale (Good internal consistency and validity)	This study examined the effect of software applications (apps) in supporting reflection in hospital staff. The findings showed an increase in collaborative reflection after introduction of the apps. Positive correlation between collaborative reflection and job satisfaction was found.
17	O'Reilly & Milner (2015), Australia	Undergraduate dietetic students (N = 45)	Multimethod Cross-Sectional online Survey	37-item scale (Not stated)	The study investigated students' experience of different RP activities. Students with more clinical experience preferred more autonomous methods such as e-journaling and engaged in reflection for non-assessment reasons. They also reported fewer barriers and more comfortable engagement in RP.
18	Priddis & Rogers (2018), Australia	General Australian population & mental health professionals (N = 188 & 45)	Cross-Sectional Survey	RPQ (Satisfactory to good internal consistency)	The RPQ was developed to measure the experiences, benefits, and potential pitfalls of RP and reflective supervision. RP was not only found to enhance confidence and self-improvement but also increase uncertainty and stress in some individuals. Positive reflective supervision is associated with greater reflection, desire for improvement, and confidence.

Discussion

This section will briefly summarise the findings and discuss the relationship between RP and other relevant constructs. The current research trend in the topic of RP and its implications for professional and continuous learning are discussed. Finally, the limitations and recommendations will be highlighted.

Summary of Findings

A total of 18 papers with acceptable to high quality ratings were included in this review. Nine instruments were reviewed, and a majority demonstrated satisfactory to good internal consistencies and validity. Although the validity of some instruments was not reported or had yet to be established, a more robust validation study with larger sample size was recommended by some studies included in this review (Lowe et al., 2007; O'Reilly & Milner, 2015; Priddis & Rogers, 2018). In general, all self-measure instruments included in this review were potentially generalisable to healthcare professionals or health science programmes with further adaptation.

Among the nine instruments, the RQ and SRIS were mostly used or discussed. Despite using the homogeneous sample and purposeful or convenience sampling method, both RQ and SRIS are simple, user-friendly, and can be adapted to suit different study contexts or professional practices. These two measures were shown to have adequate to good psychometric properties from various studies. Although the quality of the remaining studies fell within the acceptable to high range, some limitations such as questionable psychometric properties, not readily validated, and small sample size were reported. Given limited evidence for other measurement scales, the RQ and SRIS would be recommended for use in measuring RP within healthcare professionals.

In addition to measuring the level of RP, self-rating reflective scales were found to be useful when paired with other scales to investigate the relationship between variables. This includes Private Self-Consciousness Scale (PrSCS), Commitment to Change (CTC) statements, State-Trait Anxiety Inventory (STAI), Simulation Learning Effective Scale (SLES), Perceived Stress Scale (PSS), Clinical Teaching Quality (CTQ) Scale, Revised Study Process Questionnaire (RSPQ-2F), Approaches to Studying Inventory (ASI), and Course Valuing Inventories (CVI). Given that RP is understood based on different reflection models, it is often paired with a range of variables such as learning approaches, achievement goal orientations, academic performance, clinical competence, learning effectiveness, and self-directed change to understand their interaction.

RP and Reflective Measures

In order to effectively manage the fast changing and complex healthcare environment, RP has gained increasing attention in education and professional practice settings in the last two decades (Levine, 2014; Mamede & Schmidt, 2004; O'Reilly & Milner, 2015). Given the fluid and contingent nature of the concept of RP (Tummons, 2011), the review found that different models were used to further develop the reflective measures.

The development of reflective measures was grounded in various models including Mezirow's 4-dimensional framework which is often used to explore the level of reflection, and the three cognitive-emotional levels of reflection (i.e., 'Clinical Reasoning', 'Scientific Reflection', and 'Personal Reflection') which are aligned with problem-solving, critical appraisal of literature, and balanced professionalism in reflection (Aukes et al., 2007). To unify and clarify RP, it is recommended that intra-disciplinary collaboration could be considered to generate

consensus on an appropriate reflective measure for healthcare settings. The different conceptions of RP across cultures makes the development of a measure that can be used cross culturally, challenging. A combination of qualitative and quantitative methods would be useful to capture the richness of multifaceted aspects of RP and to explore the more in-depth contextual nature of reflective thinking (Phan, 2009).

Reflective measures are not only used to measure the level of engagement in RP, but also to understand the interaction between RP and other variables to establish a wider perspective on reflective thinking. In more recently published research, technology has been incorporated into the study of RP (Levine, 2014; O'Reilly & Milner, 2015; Renner et al., 2014). With the advancement of technology, it is hoped that the effectiveness of interactive measures (e.g. virtual group reflection, interactive reflective-related assessments and games) could be further explored to foster RP.

Limitations

One of the limitations in this review was the number of databases included for the literature search. Although it appeared that the databases have covered different areas of healthcare settings, one-third of the studies included in this research was identified through hand searching. In addition, a future review could consider more comprehensive search terms to fully capture intended studies for a holistic review. Another consideration was the lack of a standardised critical appraisal checklist for the use of multimethod, heterogeneous studies review. Therefore, the appraisal checklist used in this review was adapted from different studies to allow for a comprehensive and relevant appraisal of multimethod questionnaire studies that are relevant to the aims of this research. Whilst deemed appropriate for the purposes of the current review, it would have been helpful to have formally piloted the current adapted checklist. Likewise the creation of a novel measure of quality assessment

means that comparison with other assessments and appraised literature is not possible. Future research developing a standardised tool for the review of mixed-method, heterogeneous, questionnaire studies is strongly recommended.

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Chapter Two

Bridging Chapter

Word Count: 429

Bridging Chapter

The systematic review investigated the currently available self-report questionnaires that aim to measure reflective practice in healthcare professionals. Given relatively little research focusing on the measurement of reflective practice, this review intended to systematically review and appraise the existing self-rating instruments in accordance with a critical appraisal checklist. The findings of this review are believed to be helpful in giving an overview of the quality of various reflective measures that have been used and discussed within healthcare settings. It is thought that the results could contribute to the use of reflective measures for various purposes including research related to reflective practice and to assess the development of reflective practice competencies during the training of clinical psychologists and other healthcare professionals.

Despite the difficulties in assessing reflective practice as identified in the systematic review, there are many techniques used to develop reflective skills (Pee, Woodman, Fry, & Davenport, 2002; Tricio, Woolford, & Escudier, 2015) with little evidence to show that they are effective (Pee et al., 2002). With the increasing attention placed on the promotion of reflective practice, the British Psychological Society (BPS) emphasised the role of the reflective scientist-practitioner in the latest version of the Standards for the Accreditation of Doctoral Programmes in Clinical Psychology (BPS, 2017). The development of reflective practice is likely to be happening within the training environment. Within the training environment, clinical supervision is seen as the most useful way to cultivate and enhance the use of reflective practice (BPS, 2017; Davies, 2012; Milne, 2009). Despite this claim, little research has been conducted about how to develop reflective practice competencies through the use of clinical supervision. Given the importance of developing

reflective practitioners (BPS, 2017), there is a need to understand how aspects of supervision can contribute to the development of reflective practice competencies in trainee clinical psychologists. A qualitative study was therefore conducted to further understand how clinical psychologists cultivate the use of reflective practice in trainee clinical psychologists during supervision.

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Chapter Three

Empirical Study

Clinical Psychologists' Experience of Cultivating Reflective Practice in
Trainee Clinical Psychologists during Supervision: A qualitative study

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**Clinical Psychologists' Experience of Cultivating Reflective Practice
in Trainee Clinical Psychologists during Supervision: A qualitative
study**

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Clinical Psychologists' Experience of Cultivating Reflective Practice in Trainee Clinical Psychologists during Supervision: A qualitative study

Abstract

Reflective practice is regarded as an essential competency to maintain high clinical standards by various professional bodies. Clinical supervision is seen as the most common and useful way to encourage reflective practice in healthcare professionals but there is limited evidence on effective strategies for its development. Given this, it is crucial to explore how this concept is understood and promoted by qualified clinical psychologists who supervise trainees. This research aims to investigate the experience of clinical psychologist supervisors' in developing reflective skills in trainees. Findings are discussed along with implications and future research directions.

Keywords: reflective practice; reflection; supervision; clinical psychology; healthcare professional

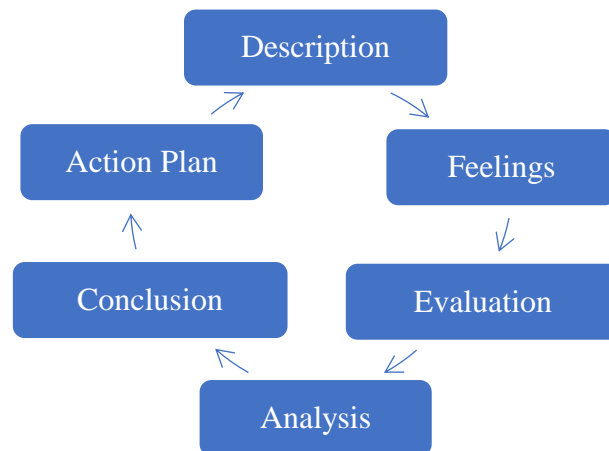
Introduction

Reflective Practice

Reflection is regarded as a vital component for lifelong learning (Grant, Kinnersley, Metcalf, Pill, & Houston, 2006) and has been the subject of research for more than 150 years (Hargreaves & Page, 2013). John Dewey was among the first to conceptualise and introduce the concept of reflective thinking (as cited in Leigh, 2016). Dewey described reflective thinking as “active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends” (as cited in Lagueux, 2014; p.1).

The notion of reflective thinking received further attention when Donald Schön (1983) introduced the concept of the ‘Reflective Practitioner’. In Schön’s view, reflective learning involves the exploration of experience, understanding its impact on oneself and others, and learning from this to inform future actions. Subsequently, Gibbs (cited in Priddis & Rogers, 2018) developed the Reflective Cycle model that has been used to make sense of a structured learning experience. This cyclic model offers a framework to examine recurrent experiences that fosters learning and planning from past experiences. This model depicted six stages of reflective learning as shown in Figure 3.1.

Figure 3.1. Gibbs' Reflective Cycle. Adapted from "Reflection, Reflection, Reflection. I'm thinking all the time, why do I need a theory or model of reflection?", (Dye, 2011).



Reflective Practice and Psychology

Given its increasing importance, the British Psychological Society (BPS) included the concept of reflective practice in the code of ethics and conduct from 2009.

Reflective practice was regarded as an essential competency to prevent ethical or personal issues developing into serious concerns (BPS, 2009). The Health and Care Professions Council (HCPC) who regulate the profession of clinical psychology within the UK, also emphasised the use of reflection by registrant practitioner psychologists in their Standards of Proficiency guidelines (HCPC, 2015). Similarly, the Psychology Board of Australia (PBA, 2015) included a requirement of an annual written reflection log in the guidelines for Continuing Professional Development for Psychologists seeking registration.

The BPS highlights the role of clinical psychologists: "as reflective scientist practitioners" (p.8) in the Standards for the Accreditation of Doctoral Programmes in Clinical Psychology (BPS, 2017). One of the overarching goals and outcomes across the training programme for clinical psychology in the UK is "Clinical and research skills that demonstrate work with clients and systems based on a reflective scientist-

practitioner model that incorporates a cycle of assessment, formulation, intervention and evaluation...” (BPS, 2017; p.15). Despite this, there is limited evidence of effective strategies for developing or learning reflective practice. For instance, trainee clinical psychologists (TCPs) were unable to identify the strategies they used to assist in their reflection (Johnston & Milne, 2012). Furthermore, (Curtis, Elkins, Duran, & Venta, 2016) argued that clinical psychologists were not equipped with skills to apply reflection in clinical supervision despite receiving relatively intensive education and training in reflective practice.

Supervision as a Mean to Develop Reflective Practice

Supervision is mandated in professional practice, and notably in the training of clinical psychologists (BPS, 2017; O’Donovan, Halford, & Walters, 2011). To maintain practice standards and enhance professional development for psychologists, professional bodies and registration authorities stipulate minimum requirements for the hours of supervision before being eligible for independent practice (cited in O’Donovan et al., 2011). This has been supported by various international studies that suggest that supervision of clinical psychology practice ought to be the focus of training and professional accreditation, especially for clinical psychologists (Gonsalvez & Calvert, 2014; O’Donovan et al., 2011). Milne (2009) suggested that the ultimate goal for clinical supervision is to enhance and secure clients’ welfare which therefore requires the: 1) provision of safe and ethical therapy, 2) development of competency and capability in the supervisee, and 3) development of long-term commitment to promote evidence-based practice.

Supervision models have been categorised into three major types: development models, psychotherapy models, and process-based models (cited in Gonsalvez, Hamid, Savage, & Livni, 2017). In the past two decades, competency-

based models have emerged in the training of health-related professions and received attention from educators, supervisors and practitioners (Gonsalvez & Calvert, 2014; Gonsalvez et al., 2017). The key features of competency models are centred around learning outcomes and evidence (Brown, Fenge, & Young, 2005), and the scope of practice and disciplines (Gonsalvez & Calvert, 2014). As such, reflective skills are seen as fundamental for the development of competent professionals, with the ability to self-monitor their performance and continuously engage in learning throughout their professional career (see Embo, Driessen, Valcke, & Van Der Vleuten, 2014).

Regular clinical supervision is seen to serve the function of encouraging reflective practice and to ensure high quality and safe practice (Department of Health, 2004; see Milne, 2009). Professional bodies such as the American Psychological Association (APA, 2018), BPS (2014), and PBA (2018) included reflective practice as a core value in their guidelines for supervisory competency. This has been supported by some researchers who argued that supervisory competence is derived from active and continuous reflection on knowledge, skills, and values/attitudes (Curtis et al., 2016). Whilst reflective practice is an important component of supervisory competence, exploring it within this context is beyond the scope of the present study. This study primarily focused on exploring Clinical Psychologists' experience in promoting reflective practice in TCPs during supervision. Specific aims to achieve the latter are outlined later in this section.

To foster the use of reflective practice during supervision, BPS (2017) states that "Reflective practice is also promoted through an effective use of supervision and collaboration with service users and other colleagues in setting goals and monitoring progress" (p.9). Despite the regulatory interest in reflective practice and competency-based supervision, research focusing on these areas remains scarce

(O'Donovan et al., 2011; Nguyen, Fernandez, Karsenti, & Charlin, 2014; Truter & Fouché, 2015) especially in the field of clinical psychology (Fisher, Chew, & Leow, 2015).

In order to effectively develop reflective practice in TCPs, it is important to explore how this concept is understood and promoted by qualified clinical psychologists who supervise trainees. Some researchers (Davies, 2012; Priddis & Rogers, 2018) have argued that reflective supervision is the most common and useful method to cultivate the use of reflective practice in healthcare professionals but that there is a lack of research in the area. Further research is required to further understand the development of reflective practice in TCP's through their formal supervision.

Aims of Study

The aims of the current study are:

- (1) To investigate the use of reflective practice by clinical psychologists during their supervision sessions with TCPs.
- (2) To understand the experience of clinical psychologists in developing competencies in reflection and reflective practice in TCPs.
- (3) To examine helpful strategies and/or barriers in promoting the use of reflective practice during supervision session with TCPs.

Methodology

Research Design

The current research is a qualitative study employing semi-structured interviews and thematic analysis within the process of data collection and analysis. Thematic analysis (TA) is a method used for identifying, analysing, and interpreting patterns within qualitative data sets (Clarke & Braun, 2017). TA was used to summarise the

data content and interpret key features of the content guided by the research questions. A constructionist approach, which emphasises that reality is created in and through the research, was applied. The researcher does not find evidence of psychological or social reality that sits behind people's words but interprets how these words produce specific realities for the participants themselves within their context (Clarke, Braun, & Hayfield, 2015).

TA was chosen because it enables the researcher to identify patterned meaning across a dataset. It is suitable for homogeneous samples, interview-based approaches, and an inductive analysis (Clarke & Braun, 2017). TA was used to capture the experience of clinical psychologists in developing competencies in reflection in TCPs across a group rather than at an individual level.

Recruitment Procedure and Participants

Ten HCPC registered clinical psychologists were recruited through purposive sampling. A recommended sample size for a professional doctorate study that involves interviews is between six to fifteen (as cited in Clarke et al., 2015). Clarke et al. (2015) suggested that fewer participants are required if individual data items provide rich and detailed data (e.g., interview), which was the case in the current study.

The Senior Clinical Tutor on a Clinical Psychology Programme in the East of England, who holds the contact details of HCPC registered clinical psychologist supervisors in the region, sent an email invitation on the PI's behalf to all supervisors on this list. Participants who were interested in taking part in this research contacted the PI directly. Eligibility of potential participants was checked against the following inclusion criteria:

- Qualified and HCPC registered Clinical Psychologist

- Uses reflective practice in clinical practice and in the supervision of trainee clinical psychologists
- Has experience supervising trainee clinical psychologists in the past two years
- Currently working in local clinical settings

Exclusion criteria for participation were:

- Current or former clinical supervisors of the PI
- Supervisors who involved in the development of the topic guide

All 10 participants who responded to the email invitation were eligible to participate. Prior to the interview an electronic copy of Participation Information Sheet (PIS, Appendix F) and consent form (Appendix G) were sent to the participants. An individual interview was subsequently arranged with each participant either at University of East Anglia or their work address. Prior to the start of the interview, participants were given the opportunity to ask any questions and this was repeated on completion of the interview. Participants were also reminded that a summary of the findings could be sent to them at the end of the study if they requested.

Data Collection

A semi-structured interview (SSI) was used to collect data. A topic guide (Appendix H) was constructed jointly by the Primary Investigator (PI) and the study supervisors, with additional input from several clinical supervisors (who were not subsequently participants). The topic guide consisted of questions relating to the participants' current professional role, their conceptualisation of reflective practice, their experience in applying reflective practice in clinical settings, their experience in

using reflective practice during supervision, and what they found to be useful and/or difficult in promoting reflective skills in TCPs.

Interviews lasted from between 43 to 71 minutes. The participants were encouraged to speak about the area of interest with limited prompting in order to enable the articulation of their experiential account. Specific questions were asked to elicit information when additional clarification or prompting to a more open question was required (Smite & Trede, 2013). All interviews were audio-recorded with participant consent and transcribed on completion. The researcher transcribed the first interview, and a professional transcription service transcribed the remaining nine. The PI sample checked four of nine transcripts and no major discrepancies were found.

Data Analysis

The verbatim transcripts were subjected to a thematic analysis. The data analysis process is divided into six distinctive phases (Braun & Clarke, 2006) which are iterative, so the researcher is likely to move ‘forwards and backwards’ between phases to attain the best possible analysis (Howitt & Cramer, 2014). After initially identifying codes within the data they were categorised according to their similarities. The meaning of each code was carefully considered and similar codes placed together which led to the formation of subthemes. Patterns across subthemes led to the development of theme. At each stage codes were reviewed to ensure the cohesion of the groupings. The name of respective themes and subthemes were assigned in accordance with the underlying, data driven patterns.

Ethical Considerations

Prior to the commencement of the study, formal ethical approval was sought. Given that the present study involved National Health Service (NHS) staff, and NHS

premises, ethical approval was gained from both Faculty of Medicine and Health Sciences (FMH), UEA (Appendix I) and Health Research Authority (Appendix J).

Confidentiality

Participants were given aliases and were reminded not to mention any identifiable information in relation to their former supervisees (TCPs) or any other individuals during the interviews. Secure storage of documents (both hardcopy and electronic copy), recordings, and transcripts was ensured through the use of an encrypted and password-protected USB memory device and a password-protected laptop to preserve confidentiality.

Data Protection

Following completion of the study, all research data would be securely stored and remain available for at least 10 years before being destroyed in accordance with the Research Data Management Policy (UEA, 2017). For participants who opt to be contacted with the results of the study, emails will be sent and then deleted from email records. The participants' contact details will also be destroyed once the emails have been sent.

Risk

There were no significant risks to participants in the present study. No issues were observed by the researcher conducting the interviews or reported by participants during and post-interview.

Credibility and Validity

It is important to establish credibility in analysis to produce a good qualitative research. Qualitative researchers have identified ways to meaningfully evaluate the trustworthiness of qualitative research (Braun & Clarke, 2013). Yardley's (2000) principles (i.e. sensitivity to context; commitment and rigour; transparency and

coherence; and impact and importance) were applied to ensure credibility and high-quality qualitative research.

Results

Six themes were identified as follows: 1) *Interpersonal Aspects of Supervision*, 2) *Collaboration and Trainees' Engagement*, 3) *Developmental Process of Reflective Practice*, 4) *Conscious Attempts to Promote Reflection*, 5) *Awareness of Potential Barriers to Reflection*, and 6) *Psychological Models and Reflective Practice*. The characteristics of participants as well as the themes and their respective subthemes were outlined in Table 3.1 and Table 3.2 respectively.

Table 3.1. Participant Characteristics

Pseudonyms	Years since qualified	Years since first supervised TCPs	Type of service
Jacob	5 – 10 years	0 – 5 years	Acute older adult services
Mia	10 – 15 years	10 – 15 years	Specialist adult mental health services
Don	10 – 15 years	10 – 15 years	Older adult community services
Lily	10 – 15 years	10 – 15 years	Older adult community services
Celine	5 – 10 years	0 – 5 years	Specialist adolescent and adult services
Nelson	10 – 15 years	10 – 15 years	Child and adolescent mental health services
Tina	15 – 20 years	15 – 20 years	Adult mental health services

Karina	20 – 25 years	20 – 25 years	Specialist paediatric services
Dorothy	20 – 25 years	20 – 25 years	Adult community mental health services
Liam	5 – 10 years	5 – 10 years	Adult mental health services

Table 3.2. The Summary of Themes and Subthemes

Interpersonal Aspects of Supervision	Collaboration and Trainees' Engagement	Developmental Process of Reflective Practice	Conscious Attempts to Promote Reflection	Awareness of Potential Barriers to Reflection	Psychological Models and Reflective Practice
Safe space and boundaries	Working together	Reflection is teachable			
Supervisors' use of self	Performance-driven evaluative context	More reflective with increased experience			
	"I have to be caring" vs "I can't be that good"	Demonstration of reflective practice			

Theme 1 Interpersonal Aspects of Supervision

The first theme consisted of two subthemes: *safe space and boundaries*, and *supervisors' use of self*. All participants contributed to this theme, which focuses on how interpersonal aspects of supervision contributed to the development of reflective practice.

Safe Space and Boundaries

Participants reported that providing an encouraging and respectful atmosphere in supervision was a key component to facilitate TCPs' reflection. Some participants emphasised the importance of TCPs feeling safe and contained within supervision to enable them to truly speak their mind, including being able to not self-disclose at times. Setting up a supervisory relationship with clear boundaries from the beginning of the placement was seen as a helpful way to promote reflection. Some participants suggested that maintaining a balance about asking the right question and not being too intrusive or overly enthusiastic reduced the risk of anxiety or unsafe feelings in TCPs.

...making sure that you're doing it (developing self-awareness) enough that people are appropriately challenged, but not going so far that they get anxious and shut up and feel unsafe and don't want to go any further, and that's a balance you can't always expect to get right. (Nelson)

Supervision boundaries also included supervisors making a clear distinction between clinical supervision and personal therapy. Mia, Nelson and Dorothy indicated that, at times, supervisors might not be able to support TCPs' difficulties. When things went beyond supervisory containment, Dorothy would suggest TCPs address their personal issues in personal therapy.

...you only have to sort of think about, is this within a sort of normal range of therapeutic responses, or is it such a severe problem that you feel that unless they have some personal therapy themselves to address those past issues, they won't, they won't really be able to be reflective in certain therapeutic situations... (Dorothy)

Supervisors' Use of Self

For some participants, curiosity was the foundation of any learning and helped improve the quality of therapy and the therapeutic relationship between therapist and clients especially when trainees felt 'stuck'. Some participants noted that they consciously maintained this curiosity as a supervisor through the use of 'wonder' words such as "I wonder..." and noticing the language used within supervision context. The interview data also showed that humour was also seen as a way to make TCPs feel less guarded and be more reflective. Dorothy explained that playful space is also a creative space where TCPs feel safe to explore things.

They are more relaxed. There's more laughter um there's more um there's more in jokes so the things that are problems become kind of in jokes and they become ok to be talked about... (Dorothy)

The directiveness of the supervisor can also shape the use of reflective practice in TCPs. More than half of the participants noticed that TCPs with limited clinical experience were more reliant on supervisors' directives and guidance during placement. Although it is easy to slip into a directive mode during supervision, Mia, Don, and Lily reminded themselves not to be too directive (i.e. jumping in with one's own suggestions or giving TCPs too much to read). For Lily, a non-directive approach was better at helping to develop the internal supervisor (Bell, Dixon & Kolts, 2017), and enhance TCPs' confidence.

I think you're owning it a bit more if you're directing somebody to reflect, and you're saying you know how was that, what do you think you did well, what do you think you might change, you know you're helping them to think

and weigh up and giving them some confidence in their own decision-making ability, it helps them develop their own internal supervisor. (Lily)

Participants reported that it helped to normalise TCPs' concern and behaviour when supervisors shared their own experience of similar situations. In addition, Nelson believed that an appropriate level of self-disclosure helped to build trust in a supervisory relationship. Celine and Lily reported that sharing similar experiences with TCPs often facilitated self-reflection as trainees would learn that supervisors went through the same things as them.

Sometimes it's reassuring to, as a supervisor, for your supervisor to be saying "Yes, I've been there I know what that's like". (Celine)

Theme 2 Collaboration and Trainees' Engagement

This theme captured participants' attempts to cultivate a collaborative supervisory atmosphere to enable trainees to engage in the process of reflective practice. The fear of being judged and the broader assessment context that contributed to TCPs' engagement in reflective practice were also outlined and discussed in this section. The subthemes: *working together*, *performance-driven evaluative context*, and "*I have to be caring*" vs "*I can't be that good*" are outlined below.

Working Together

All 10 participants advocated collaborative reflection within supervision. For instance, they would go through issues together with TCPs, reflecting on matters that get in the way, discuss and formulate cases together, and give feedback and prompt for reflection following observation sessions. For Lily, giving feedback on TCPs' clinical decisions enhanced their decision-making capacity and reflection.

You're helping them to think and weigh up, and giving them some confidence, giving them some feedback about that can help them have confidence in their own decision making ability. (Lily)

Six participants considered that mutual observation or joint sessions enabled the development of reflective practice. Tina, Karina and Dorothy also suggested that modelling self-reflection following a joint session would encourage reflection in TCPs.

...it's partly showing to the trainee that you're not the one with all the answers, that you need to reflect on what you're doing, so it's those moments when you're maybe doing a joint session together, and they watch you freeze or struggle with something or get something wrong, and then you can then reflect on it afterwards. (Dorothy)

Performance-driven Evaluative Context

Some participants reported that TCPs often want to do or say the "right" thing. For Jacob, a trainee's reflective ability can be influenced by their perception of their performance and they often try to say what they think the supervisor wants to hear. This approach can become an inhibitor for TCPs to reflect or learn. To counteract this performance-driven attitude, the majority of participants suggested taking a normalising approach, including normalising imperfection and encouraging learning from mistakes and successes to promote that there is no right or wrong way to feel or to reflect and that it is ok not to offer a solution. Tina reported that:

I suppose you know you would say there's not a right or wrong way to feel...I think the barrier might be that they think well you know, if I say "I

saw this patient and they made me feel you know really angry or really sad”
that I (as a supervisor) can’t hear that... (Tina)

For some participants, the supervisors’ dual coaching and assessor roles could suppress the use of reflection in supervision as they are responsible for grading trainees’ performance and providing feedback to the training course. Both Nelson and Karina believed that the potential power dynamic present during supervision may affect the level of openness and reflection for TCPs.

...for example, that it would feel very exposing to a supervisor who’s also going to be assessing their competence, um there might be issues such as you know their perception of the power dynamic in the room. (Karina)

To address this, Dorothy proposed that developing trust and ensuring confidentiality so that TCPs feel safe to share or reflect within the evaluative context.

“I have to be caring” vs “I can’t be that good”

Jacob and Dorothy asserted that most trainees find it tough to admit that it’s difficult to be reflective. Dorothy noticed in general that TCPs have difficulties in expressing negative feelings towards their clients because they are psychologists.

...you’d want trainees to be able to talk very openly about feelings, negative feelings towards clients which they often find very difficult to express because they’re in a caring profession, and they’re a trainee, and they think they should be warm towards everyone. (Dorothy)

About half of the participants reported that trainees often found it difficult to receive praise and positive feedback. For Celine, this was not only limited to TCPs, but psychologists in general, who are not good in recognising their own strengths and

therefore she explicitly discusses things that are going well during supervision. Don felt that struggling to recognise one's own strengths may be associated with the lack of reflection.

...I think if someone is feeling really uncomfortable and struggling to identify their strengths, then I would kind of wonder whether that's actually primarily due to a lack of reflection, rather than a fundamental lack of strengths...

(Don)

Theme 3 The Developmental Process of Reflective Practice

This theme described the development of reflective practice, from initial exploration and learning to the application phase. It contained three subthemes: *reflective practice is teachable*; *more reflective with increased experience*, and *demonstration of reflective practice*. All participants contributed to this theme.

Reflective Practice is Teachable

For some participants, reflective practice was not a new idea for TCPs. They had often already engaged in self-reflection and were able to bring reflective practice into supervision.

I'd be really surprised if somebody, if somebody turned up at placement and had no concept of reflecting on their internal world or their practice. I'd be very worried about that if that happened, ...it hasn't really. (Mia)

Four participants noticed some trainees were naturally more reflective than others. Similarly, Lily, Tina, and Liam also found that some TCPs require some encouragement to develop and enhance their reflective skills.

Some trainees they do it (reflect) very well, for some it doesn't come as naturally and they need to be helped to work with it more. I think it's a harder competency to get your head around than other things. (Liam)

More Reflective with Increased Experience

The majority of the participants felt that TCPs that had required clinical experience prior to training, or were in the latter stage of their training were generally more reflective.

... as you get more experienced, you're also getting older as an individual and you're having more life experience, and there's something too about being able to use that sometimes to reflect on how you view certain struggles or difficulties, or how you understand certain transition periods and the impact that has. (Celine)

Based on participants' experience, TCPs at their early stage of training were usually more focused on the acquisition of knowledge and techniques. They were also more often seeking reassurance and required more prompting and guidance to reflect.

Nonetheless, Nelson, Dorothy and Liam expressed different views on this. For them, stages of training were not related to the ability to reflect as not every trainee develops as a reflective practitioner over the course of training. Nelson believed that some TCP's are not ready for that level of curiosity and they would return to it at a later date when they feel more ready.

...they'll kind of return to it (reflection) at a later date and I think that's probably a positive reflection on that, but I think it also demonstrates that sometimes people aren't ready for that level of curiosity or intrusion.

(Nelson)

Demonstration of Reflective Practice

Most of the participants felt they could identify the development of reflective practice through the behaviour of TCPs. For example, trainees were seen to be more reflective when they were more self-aware and asked more reflective questions that were unprompted.

Are they doing it more naturally without so many prompts? Are they able to sort of recognising their strength but also being open and talking about things that where they may have made a mistake or done something that didn't quite fit? (Celine)

Some participants reported that TCPs often feel more confident and less anxious when they are able to reflect spontaneously. The progress in reflective practice can also be noticed when trainees feel more comfortable to take risks and go beyond their comfort zone. Participants also observed that TCPs became more reflective when they focused more on the contexts beyond the clinical work, modelled reflective practice with other healthcare professionals, and became more active and playful within supervision.

I suppose you might then see them modelling it with the wider team, kind of asking people to consider what they think might have been going on in that particular incident, or encouraging non-psychologists to think more psychologically... (Karina)

Theme 4 Conscious Attempts to Promote Reflection

The fourth theme depicts the active effort of participants to help develop reflective practice in TCPs. Although this theme appears to overlap with theme-1, theme-4 primarily focuses on the conscious, active attempts of participants using a number of

strategies to foster self-reflection during supervision. This is in contrast to theme-1 which emphasises the importance of the interpersonal atmosphere during supervision to encourage the use of reflective practice. Participants deliberately took opportunities to enhance reflective skills within and outside of supervision.

...if I notice for example something happening in the supervision I might use that as an opportunity to get them to reflect in the moment and maybe demonstrate what I'm doing as well (Karina)

This could be facilitated by the supervisor through the use of recordings, modelling and role-plays, guided discovery, and genograms. This often requires the participant to spontaneously model or demonstrate the use of reflection in front of TCPs.

...trainees tend to be in the room with us, so me and my colleague would maybe talk, would reflect on a case or I don't know whether it was particularly harrowing or whether it was particularly irritating or even you know a team MDT (multi-disciplinary team) or something like that, so I think to model well hopefully what's good reflective practice in front of trainees so that they realise that this is something that they can talk about as well...
(Tina)

Other strategies such as directed reading and keeping a reflective journal were more reliant on trainees' persistence in implementation, albeit active involvement by participants. However, it is also interesting to note that some participants had a strong preference for a particular strategy over others.

...in the context of supervision, I will try and ask questions that promote reflection, I will try and provide reading materials around particular issues...
I don't tend to use role-play very much, I don't try and get people to keep a

reflective journal, that maybe my personal prejudice but also found that when I had a reflective journal what really happened was I tried to fill it in just before I had to discuss it with someone... (Mia)

Theme 5 Awareness of Potential Barriers to Reflection

This theme described potential obstacles to reflection. Some participants provided more time for reflection during supervision as they were aware that time restriction and stress levels were two significant barriers to reflection. Mia and Dorothy felt that a lack of intellectual curiosity and insight may be a block to reflection.

I suppose you could see that as part of reflective or certainly it's not even a problem with empathy but it's a problem with you don't know what you don't know... If you see what I mean a sort of lack of intellectual curiosity was a bit of a concern. (Mia)

More than half of the participants found that TCPs became less reflective when they focused on more technical aspects of clinical work.

It is good to, you know to try new ways of working and to do things well and do things that you know fit the model, but I suppose recognising what can be lost sometimes with being so fixed on that you might you might miss useful information... (Celine)

The majority of the participants thought it was important to be mindful about the way clinical work could resonate with TCPs' personal life experiences.

Traumatic experiences of trainees could potentially interfere with their professional role and ability to reflect. Defensiveness, rigidity, and anxiety were often seen as traits that limited reflection in TCPs.

I've noticed that, all the people that I've supervised who felt very unresponsive um to supervision have quite common personality characters, they have a sort of common set of personality characteristics, they're generally quite rigid and a little bit controlling. (Dorothy)

Theme 6 Psychological Models

This theme captured participants' perception of the use of psychological frameworks in reflective practice. Eight participants believed that using a psychological model helped provide some structure to the way people reflect. Some participants advocated an eclectic approach and used elements of different models to inform reflective practice. Others focused more on psychodynamic (see Deal, 2007), systemic (see Stratton & Lask, 2013), and cognitive analytical (see Denman, 2001) approaches given their relational components. For instance, Tina believed that a psychodynamic approach encouraged a deeper level of reflection.

I think (the) psychodynamic (approach) is very reflective because I guess it works just on the transference and counter-transference, and I suppose maybe it's a stereotype, but I think CBT is maybe a bit less reflective. (Tina)

Although cognitive-behavioural therapy (CBT, see Keegan & Holas, 2009) was generally viewed as being too structural by some participants, Tina and Liam believed that reflective practice does exist in the model but reflection is more on techniques.

I would recognise that reflective practice would exist in CBT... reflective practice might be on how we are using it at all, or why it's not worked and someone's not done their homework, um but I wouldn't see it as entrenched in the model... (Liam)

Some participants preferred to use a more generic reflective model such as Kolb's experiential learning cycle, Gibbs' reflective cycle, or Schön's reflection in/on action, to promote self-reflection. Based on Karina's experience, TCPs usually respond well to a reflective model if the supervisor can make it directly relevant and therefore useful to them.

Discussion

The data obtained in this study demonstrated the importance of reflective practice. To most of the participants, reflection was a vital element across the breadth of clinical psychologists' work and was viewed as a core competency in maintaining high professional standards and promoting experiential learning. This finding concurs with the widespread recognition of the importance of developing reflective practice in healthcare professionals (Davies, 2012).

Interpersonal aspects of supervision are seen as helpful and significant in promoting reflective practice. Some researchers (Hobbs, 2007; Naghdipour & Emeagwali, 2013) have also highlighted the importance of creating a proper and conducive learning environment to enhance the engagement of reflection. To the researcher's knowledge, there is limited study focused on how to create a safe and trusting atmosphere which help foster the development of reflective practice. This study outlined some potentially helpful ways to provide a safe space for reflection: setting appropriate boundaries, maintaining an appropriate level of self-disclosure and directiveness, maintaining a curious stance as a supervisor, and using humour during supervision. The suggested features of supervision could be actively utilised during clinical supervision to enhance the progression of reflective skills in TCPs.

One finding less articulated in the literature was that a performance-driven attitude by TCP's impacts on their ability to develop reflective practice skills. The results suggested that TCPs demonstrated a need to get things right during their placement experience and this is likely associated with the evaluative context. Hobbs (2007) believed that reflective practice should not be assessed in the early learning stages as the feeling of being assessed suppresses TCPs' openness during supervision. To encourage the adoption of reflective practice, TCPs should be provided with opportunities to reflect and learn in a non-threatening way. For instance, some supervisors attempted to take the pressure off trainees' by modelling being imperfect and not knowing the answers all the time. The promotion of and monitoring on reflective skills should not be built around a summative context. Further research investigating the performance-driven attitude from TCPs' perspective would be useful when thinking about how to develop competencies in the area with respect to training programmes and in the design of the reflective module.

The findings from the study demonstrate that clinical psychology supervisors make some conscious attempts to foster reflection in TCPs. There were a variety of different preferences for the promotion of reflective practice, such as the use of recordings, genogram, modelling and role-play, guided discovery, directed reading, and reflective journal. Furthermore, the range of strategies used required differing levels of involvement from supervisors. For instance, supervisors play a more active role in modelling and role-play and are less involved in guided reading. However, TCPs' preferences in terms of methods used to develop reflective practice was not reported by participants and could be an area of focus for future research. It seems likely that taking trainees' preferences into consideration when fostering reflective

practice would enhance their development and this could be a focus for future research and would likely have useful implications for training courses and placement providers. This idea was supported by O'Reilly & Milner (2015) who argued that students at different stages of development prefer to use distinct reflective practice methods.

Another finding was that TCPs' ability to reflect could be further developed throughout their professional training and this was aligned with Neville's (2018) and Tricio, Woolford, & Escudier's (2015) studies. Contrary to this, a small number of participants believed that the stage of training was not directly related to the level of engagement in reflective practice and that some TCPs continued to struggle in reflective practice in their final year of training. Despite the initial reflective ability, it would be beneficial if supervisors track the development of reflective practice and tailor the promotion of reflective skills according to the comfort level of trainees' engagement. To effectually promote the use of reflective practice, it is also important for supervisors to track the progress of self-reflection in a more systematic way. This could be done by exploring the level of reflection by the use of standardised assessment tools during supervision.

The study identified some commonly seen factors that inhibit self-reflection: time restriction, increased stress levels, lack of insight, and being too focussed on technical aspects of clinical work. Furthermore, the ways in which the TCPs' professional role resonated with their personal experiences, and personal characteristics such as rigidity and defensiveness were also barriers to reflective practice. Previous research has highlighted similar factors that inhibit self-reflection. These include a lack of awareness and motivation, lack of metacognitive skills such as self-monitoring and self-evaluating (Renner et al., 2014), stress, teaching quality

(Pai, 2015), time, and lack of understanding of the reflective process (Davies, 2012). Being appropriately curious as a supervisor could help early identification of problem areas. To effectively address these barriers, some supervisors suggested offering more time for supervision and ensuring some specifically reflective activities during supervision. Joint reflection between supervisor or other healthcare professionals and TCPs could be considered to further cultivate the reflective ethos. This could potentially enhance trainees' insight by focusing less on technical aspects of clinical work and by incorporating both modelling and an appropriate level of self-disclosure.

Different psychological and reflective models were reported to be useful to inform reflective practice. Relational models such as psychodynamic (see Deal, 2007), systemic (see Stratton & Lask, 2013), and cognitive analytical (see Denman, 2001) approaches were seen to be more helpful in promoting reflection in TCPs compared to the cognitive-behavioural model (see Keegan & Holas, 2009). Regardless of supervisors' psychological stance, the use of reflective frameworks was regarded as very useful in providing a further understanding of the concept of reflective practice. With the help of the generic reflective models such as Kolb's experiential learning cycle, Gibbs' reflective cycle, and Schön's reflection model, the implementation of acquired knowledge into practice was made easier. Nevertheless, there was a lack of any consensus about which models to use and this reflects the lack of agreed consensus regarding the concept of reflective practice (Lowe, Rappolt, Jaglal, & Macdonald, 2007; Smite & Trede, 2013).

Conclusion

A safe and conducive atmosphere is very important in helping to foster reflective practice within supervision as is early identification of potential barriers.

Performance-driven behaviours can be addressed by using commonly used strategies, including active modelling and self-disclosure. Although there were conscious attempts to promote the use of reflective practice in TCPs, there was a wide range of diversity in terms of how to develop reflective practice. In addition, the lack of agreed consensus about the concept further complicates how supervisors and TCPs engage in reflective practice. Research attempting to develop a consensus of terms across clinical psychologists would be a useful focus for future research.

Limitations

One of the limitations of this study involves the self-selected, purposive sampling method of recruitment. Given the inclusion criteria, the participants included in the study value and are currently using reflective practice in a clinical setting. Accordingly, the range of views on the central importance and value of reflective practice amongst clinical psychologists' is constrained by the sample recruited. In addition, the definition of the concept of reflective practice was not a focus in this research. Given that the way clinical psychologists understand reflective practice may impact on how they try to foster these skills in TCPs, a clearer focus on the definition of reflective practice would have been helpful. Apart from this, the analysis and ordering of the themes in this study reflected a prominence hierarchy in their contribution to the findings. The respective data were presented in an order to showcase their relevance relation to the study aims.

Conflict of Interest

The authors declare that they have no conflicts of interest in the study.

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Chapter Four

Discussion and Critical Evaluation Chapter

Word Count: 5179

Discussion and Critical Review

This chapter aims to further discuss the findings from the systematic review and empirical study. This will be followed by a critical evaluation of the studies and the researcher's reflections.

Systematic Review

This section discusses broader aspects of the findings from the systematic review. This includes the reflective models used in the development of reflective measures and the use of technology in promoting reflective practice. The critical evaluation, strengths and limitations of this review are also discussed.

Discussion and Findings

Reflective practice is regarded as a key component in healthcare settings as it helps practitioners evaluate the norms and assumptions of their current practice (Tummons, 2011). The concept of reflective practice has been inadequately understood for decades (Bassot, 2015; Nguyen, Fernandez, Karsenti, & Charlin, 2014) despite being a focus on research and professional training. The understanding of reflective practice is primarily dependent on individuals' learning experience. For instance, different supervisors or lecturers may promote reflective practice in different ways, hence the learners' experience and understanding of this construct would not be the same. Given the emergent and contingent nature of reflective practice (Tummons, 2011), it is not surprising that there is a lack of unity on the definition of reflective practice. This has further complicated the development of reflective measures.

Different models are used to inform the development of reflective practice measures. This includes John Dewey's (1933), Donald Schön's (1987; as cited in Schön, 1991), and Jack Mezirow's (as cited in Taylor, 2009) models which

emphasised different aspects of reflective practice. For instance, Schön's model focuses on the process of reflection, such as reflection-in-action and reflection-on-action, whereas the core ideas of Dewey's and Mezirow's models involve the extent to which an individual engages in reflection. Given multifactorial influences, further investigations utilising both quantitative and qualitative approaches are strongly recommended. This would enable a better understanding of this multifaceted concept and generate a more holistic description of reflective practice for further adaptation in various healthcare contexts.

The systematic review showed that current reflective measures were mainly designed for specific contexts. For instance, measurement scales may be paired with other measures to investigate the relationship between reflective practice and other constructs. Some studies (Sobral 2000; Sobral 2001) investigated the relationship between reflective practice and learning, whereas others aimed to gain a better understanding of the connection between reflection and professional competencies (Pai, 2015). Despite being the subject of research, no unified reflective measures have been developed for healthcare professionals. Given its fluid and contingent nature, the definition of reflective practice may vary depending on the context, culture, and the specific content of what is being learnt. Despite the complexity of this construct, greater attention could focus on generating a consensus about the concept of reflective practice in particular contexts. For instance, it is recommended that intradisciplinary collaboration (e.g., clinical psychology) could be undertaken to develop a definition that could be used for professional training and registration purposes.

Some papers included in the review discussed the use of technology in promoting reflective practice. Various virtual techniques such as blogging (Levine,

2014; O'Reilly & Milner, 2015), e-journal (O'Reilly & Milner, 2015), mobile or web application, and 'serious game' (Renner et al., 2014) have been introduced in recent years. Mobile or web application helps remind the users to reflect and document their tasks. Serious game, on the other hand, was created to help users reflect on and prepare for potentially difficult situations. In addition, O'Reilly and Milner (2015) found that individuals in the latter stage of training preferred more autonomous methods (e.g., virtual tools) of reflection. Future research focusing on the incorporation of various virtual methods could be considered to explore the effectiveness of reflective strategies in fostering reflective practice in both novice and experienced healthcare professionals. This would further contribute to the use of virtual tools within a professional training context.

Critical Evaluation

This section focuses on a critical appraisal of the current review in accordance with the Critical Appraisal Skills Programme (CASP, 2018) checklist for standards of a systematic review.

Are the results of the review valid? The review addressed a clearly focused question and appropriate papers were chosen based on the clearly stated eligibility criteria. To ensure the relevant studies were included, PRISMA flowchart was used to guide the screening and selection process. Apart from searching the electronic databases, the reference lists of the articles included in this systematic review were hand searched and this method resulted in an addition of six articles. A total of 18 studies were independently reviewed by the second reviewer against both inclusion and exclusion criteria to ensure the validity of the selection process. Given the lack of a standardised critical appraisal checklist for the use of multimethod, heterogeneous, questionnaire studies, an adapted version of three critical appraisal

checklists (Roever, 2016; National Institute for Health and Care Excellence, NICE clinical guideline 143, 2012, p.143-144; Centre for Evidence Based Medicine, n.d.) was used to quality assess the papers. Results of all the included studies were clearly displayed in tables and the variations in results were explicitly discussed. With the systematic procedures mentioned above, it is believed that the results in this review are valid and applicable to various healthcare contexts.

What are the results? There are 18 papers meeting the appraisal criteria, ranging from acceptable to high quality, included in this study. The results were presented as a narrative synthesis given the heterogeneity of the study design. The results that came from this synthesis were highlighted along with recommendations based on these findings. Among nine identified instruments, Reflective Questionnaire (RQ) and Self-Reflection and Insight Scale (SRIS) were mostly used and discussed. Given the limited evidence available for other questionnaires, the RQ and SRIS would be recommended to be used by healthcare professionals.

Will the results help locally? It is believed that the results are able to be applied to the local healthcare population given the studies were conducted in various countries, including the UK. The results could be useful for tracking the progress of reflective practice in a clinical training setting. The recommended reflective measures are useful for being included as an outcome measure for research that aims to investigate the effectiveness of various reflective tools. Future research which aims to examine the effectiveness of various reflective measures within healthcare professionals is strongly recommended given the scarcity of the available research.

Strengths and Limitations

To the best of the researchers' knowledge, there has not been a systematic review published or registered in an international database such as PROSPERO International and Cochrane Library at the time the review was undertaken. This review focused on appraising instruments that have been developed to measure reflective practice and as such makes a novel contribution in this area.

One of the limitations was the lack of a critical appraisal checklist for multimethod, heterogeneity, questionnaire studies. The current adapted, 9-domains, 24-items version of critical appraisal checklist has not been extensively studied. It is recommended that it could be further researched and validated within different settings for broader use in the future. Relevant items from NICE clinical guidelines 143 (2012) and Roever's (2016) critical appraisal checklists were selected according to nine domains that cover various aspects of a questionnaire study. This includes research aims and study design; sampling; format; piloting; psychometric properties; distribution, administration and response; analysis; discussion and conclusion; and ethics.

Despite the careful choice of search terms and search databases it is acknowledged that one-third of the studies were identified through hand searching. A future review that aims to investigate reflective measures could consider including a more comprehensive list of databases and search terms. This might generate further papers for review and limit the proportion of papers accessed through hand searches.

Empirical Paper

The aims of this research were to explore the experience of clinical psychologists in cultivating reflective practice in trainee clinical psychologists (TCPs) and what they find helpful or obstructive in this process. This section

discusses the important findings from the empirical paper, and its implications for the promotion of reflective practice in clinical psychology training. The strengths and limitations of this research are also outlined.

Discussion and findings

The importance of interpersonal aspects of supervision was highlighted in this study. It was found that a safe and respectful space was seen as a pre-requisite to reflective practice, especially for TCPs. This was supported by Mann, Gordon, and MacLeod (2009) systematic review where they stated that: “Further complicating the assessment of reflection is the influence of the context on students’ perception of safety in revealing their personal reflective thoughts” (p.609-610). To enhance people’s engagement in reflective practice, an appropriate and reflective conducive environment was also emphasised in a more recent study (Naghdipour & Emeagwali, 2013). However, the understanding of how to teach or cultivate reflective practice remains incomplete. This study contributed to this area by presenting a number of ways that clinical psychologist supervisors used and found it helpful to create an open and trusting space for TCPs to honestly reflect on their clinical or personal concerns.

Current research findings reinforced previous studies including the association between training stages and reflective practice, and the identification of potential barriers to the promotion of reflective practice. In line with some research (Neville, 2018; Tricio, Woolford, & Escudier, 2015), this study suggested that trainees with more pre-training clinical experience or in the later stage of their training demonstrated better reflective skills during their clinical placements. This also implied that reflective practice is teachable and can be further developed within a collaborative and safe supervisory relationship (Tomlin, Hines, & Sturm, 2016).

Since reflective practice can be taught and learned, more research is required to produce a reflective framework that is suitable for TCPs and other professions. Reflective practice could be further enhanced by developing new reflective-focused curriculums in which the development of reflective skills are regularly monitored.

Another crucial component highlighted in this study was the awareness of potential barriers that hinder reflective practice in TCPs. Given that supervision is seen as an important way to cultivate reflective practice (Davies, 2012; Milne, 2009), early identification of the barriers to reflective practice should guide the supervisory approach. To counter some barriers to reflective practice, it is recommended that reflective practice should be introduced gradually through guided reflection. In addition, TCPs could be given a choice on their preferred reflective methods to increase their engagement in reflection. To further reduce the impacts of potential barriers, collaboration between supervisors and trainees such as joint reflection after a joint session, or regular use of modelling and self-disclosure could be considered.

The performance-driven and evaluative context of both placement and supervision were found to be one of the crucial components that influences TCPs' engagement in reflective practice. It was not surprising that trainees were preoccupied with a 'I have to get things right' attitude given the assessment context. It is expected that trainees were results-driven rather than being process-driven. That is, they placed their priorities in performing the necessary tasks to pass their clinical placement over cultivating their reflective skills. It was observed during the interviews that some participants mirrored some performance-driven characteristics demonstrated by TCPs. To the researcher's best knowledge, the fear of inadequacy as a supervisor and their skills at being able to promote reflective practice has not been extensively researched in the past. Given that the supervisors' characteristics

and responses were found to be one of the associating factors to TCPs' engagement in reflective practice, it is recommended that future research could consider investigating the relationship between human factors and the level of reflection.

The current findings also suggested that supervisors' training background may have an impact on how they promote reflective practice. For instance, psychodynamically trained supervisors would understandably use a psychodynamic approach to help foster reflective practice. Based on the study results, there was no one strategy or reflective model that stood out from the others and there is no one systematic structure for promoting reflective practice. Taking into account the needs of flexibility and the contextual component of reflective practice, it is also recommended that further research could look at the usefulness of commonly used reflective strategies, from the perspective of both supervisors and TCPs, within the clinical psychology setting.

Despite being emphasised by regulatory bodies (British Psychological Society, 2017; Health & Care Professions Council, 2015), the concept of reflective practice was not adequately understood (Andersen, O'Neill, Gormsen, Hvidberg, & Morcke, 2014; Nguyen et al., 2014) and there is still confusion around how to promote reflective practice. In view of this, local intra-disciplinary collaborations (e.g., respective divisions of psychological society) are recommended to develop a cultural and context-specific consensus on the understanding of the concept of reflective practice and this may further contribute to the development of a standardised and systematic measure for use in a local psychology setting.

Critical Evaluation

The qualitative research guidelines of Kuper, Lingard, & Levinson (2008) were critically appraised throughout the research in order to maintain the quality and validity of this current study. The appraisal questions outlined in Kuper et al.'s study are discussed below. Following this is a discussion of the strengths and limitations of the empirical paper.

Was the sample used in the study appropriate to its research question?

Participants in this study were recruited through the adoption of a self-selected, purposive sampling methodology given the intended study population. In order to protect the privacy of HCPC registered clinical psychologist supervisors and reduce the introduction of extra bias on the recruitment process, the principal investigator (PI) was excluded from the email invitation sent to the contact list. Participants who were interested in participating in this study contacted the PI directly and their eligibility was checked against the inclusion criteria, hence, the participants included in the study were considered highly relevant to the study aims. Clarke, Braun, & Hayfield (2015) suggested a sample size of between six to fifteen for a professional doctorate study that employs interviews and therefore the total of 10 participants recruited in this study was within this recommendation.

Were the data collected appropriately? In order to obtain rich and in-depth data from individual participants, a semi-structured interview (SSI) was used and this is often regarded as the most useful interview format for conducting qualitative study (Zorn, n.d.). With the aim of gathering valuable information from the context of participants, the topic guide (e.g., a list of pre-determined interview questions) was not strictly followed during interviews (Smith & Eatough, 2007). The research

participants were given opportunities both prior to, and after the interview, to clarify their queries.

Were the data analysed appropriately? The transparency of analytical methods was maintained through regular discussions with research supervisors. While both Interpretive Phenomenological Analysis (IPA) and Grounded Theory (GT) seek patterns in the data, Thematic analysis (TA) is a relatively unique qualitative analytic method that does not specify data collection methods and theoretical positions (Clarke & Braun, 2017). Given the present study did not aim to explore in-depth, sense-making experience of participants or develop theory, an inductive TA was used to draw conclusions as to the experience of this group of participants in developing reflective competencies in TCPs. As TA is a flexible method for small and homogeneous samples, interview data types and inductive analysis, it is the optimal choice for the present, data-driven study.

Codes from some scripts were sampled and checked by one of the research supervisors (P.F.) and feedback was then addressed when the PI repeated the coding process. A triangulation approach such as cross-checking and a recursive process of data analysis was taken throughout the research study to ensure the validity of data analysis.

Can I transfer the results of this study to my own setting? Qualitative research is more contextual in nature as it does not seek to be generalisable like quantitative study (Braun & Clarke, 2013). For Kuper et al. (2008), transferability of study findings is a more prominent quality in qualitative research. The researcher believes that the current research findings are of benefit within the training of clinical psychologists especially in terms of supervision practice. Given that little is known about how to develop reflective skills in TCPs, the research findings articulate the

important aspects of supervision and the useful strategies that could be utilised by other supervisors in the promotion of reflective practice. Sufficient details pertaining to the participants, contexts, the process of this study, and the study results have been provided in this empirical study so that the reader is able to make a judgement about the degree to which these findings are transferrable to their specific context.

Does the study adequately address potential ethical issues, including reflexivity? Potential ethical issues were addressed prior to the commencement of the study with formal ethical approval being sought in accordance with the BPS code of human research ethics (BPS, 2014). Participants' names and any other identifiable information was replaced with pseudonyms to maintain confidentiality. The consent forms which contain participants' details were stored separately from the interview transcripts and the list of participants with their corresponding pseudonyms. Anonymised audio recordings were shared electronically with a professional transcribing service through a password protected university OneDrive. Both the audio data and transcripts were deleted by the service once the PI confirmed receipt of the transcripts. All other research-related electronic documents (e.g., transcripts and recordings) were stored in a password protected laptop. The participants were reminded not to mention any identifiable information of their former supervisees (trainees) during interviews to protect their privacy. Participants were also informed (in the patient information sheet, PIS) that confidentiality would be broken if any concerns were raised in relation to misconduct or potential unethical practices. The course (Clinical Psychology Doctoral Programme) director's email was provided in the PIS should participants have wished to have made a complaint about this study.

Strengths and Limitations

The sample size of 10 is considered adequate for a small to medium project that uses TA for data analysis (Braun & Clarke, 2013). Additionally, the participants were recruited from different services and the diversity of clinical experience is believed to provide a comprehensive picture of the ways in which clinical psychologists promote reflective practice during supervision. Moreover, the constructionist approach taken by the researcher emphasised the reality created in and through the research. With this in mind, the participants' experience and the underlying meaning were focused during the interview process to allow the creation and interpretation of specific realities that sat within the participants' context in an inductive way.

It is acknowledged that this study involves the self-selected, purposive sampling method of recruitment. The researchers are aware that the homogeneity of participants recruited in this study may limit the breadth of perceptions and experiences in the promotion of reflective practice. Therefore, the findings of the results are not widely transferrable to other populations, especially people who remain sceptical about the usefulness of reflective practice. In addition, the perceptions of reflective practice vary given the diverse background of the participants, this does have an impact on how clinical psychologists help foster reflective skills in TCPs.

Researcher's Reflection

The researcher's reflection on the broader ontology and epistemological stance of the qualitative study and the process of conducting research are described below.

Ontology and Epistemological Position

As a novice qualitative researcher, some difficulties were encountered in shifting the perception from the formerly learned realism ontology to the recent exposure to relativism ontology. In my experience, the focus of previous research teaching has always been on the realism end of the ontology continuum. The application of scientific methods has been a central aspect of psychological research and it is widely believed that “if you can observe and measure, then you can predict and control” (Hargreaves & Page, 2013; p.3). It is also believed that a psychologist is a ‘scientist’ whose responsibility is to find the ‘truth’ through the appropriate application of research techniques. Contrary to realism, relativism ontology underpins some qualitative approaches that aim to identify differing ‘truth’ and meaning of study participants across time and social context. It was a challenge for me to ‘unlearn’ the knowledge that has long fixated on the realism ontology and to become more opened up to the continuum of ontology that informs various types of research approaches – including the one used in the current study.

It was quite interesting to consider that reality could be ‘created’ through the process of research within the relativist epistemological position (constructionism). Although it was not easy to deviate from an empiricism perception, the ideological approach (i.e., the world is understood based on specific social or cultural contexts) was maintained throughout the research with the attempt being made to produce results within the specific context of the individual participant. With this in mind, the focus of the study is placed more on the understanding of the participants’ experiences and making sense of them instead of blindly looking at the pattern of a set of data, trying to group patterns together.

Reflection on Research Process

Given that this was the first piece of qualitative research that I have conducted, I was fearful that I would not be able to undertake a sufficiently thorough piece of qualitative research. I noticed that I focused a lot on the topic guide when I interviewed my first participant due to performance anxiety. I also realised that I was preoccupied with the thoughts “I have to finish asking all the questions on my topic guide” and “I am not sure if I am doing this right”. This distracted me from being able to actively listen to the participants and probe further into the interesting information that was provided. However, after a thorough discussion with my research supervisors, I was able to manage the performance anxiety and became more confidence in conducting the subsequent interviews. In addition, as a novice researcher, I may have asked questions that lead participants in certain directions and therefore, I regularly reminded myself to maintain an appropriate level of curiosity about everything that the participants shared.

I was also aware of the power dynamic within the interviews. As a TCP myself, I could feel ‘inadequate’ in front of experienced clinical psychologist supervisors. Despite the fear of being judged by the participants, the pleasant interview atmosphere and the enthusiasm of participants helped me build my confidence in conducting interviews. I felt more comfortable with each interview I conducted and noticed that I relied less on the topic guide and focused more on the conversations between myself and the participants. It was felt that some of the findings from my empirical paper were mirrored by me, such as ‘I have to get things right’ and the power dynamic between TCPs and their supervisors. It appears to me that as a qualitative researcher I cannot claim to be an objective researcher but have

to be more aware of my own feelings and articulate my position in relation to the study subject.

Nonetheless, through this process, and with guidance from both my research supervisors, I noticed the transition and progression of my own self-reflection and self-awareness. I was more aware of the connection between my perceptions, my feelings and the research process. For instance, I was more able to address and reflect on my fear as a TCP interviewer and work on it to reduce any possible influence in the subsequent interview. This has further contributed to my learning by which I regularly reflect from my experiences to inform my future responses.

It is interesting to note that some participants mentioned something useful post-interview which could not be included in the analysis. For instance, some participants recalled some strategies they used to enhance reflective skills in TCPs after the interview ended. I felt reluctant to let go of the information that was not audio recorded but was unable to include it in the analysis to adhere to the systematic structure of the study. Despite being asked at the end of the interview if they have anything else to share, some participants only managed to recall information after the interview had finished and the audio tape was switched off. This might be an indication that I did not provide enough space for participants during the interview. I would sit longer in silence in a future study so that participants are given sufficient time to think and respond to the interview questions.

As a novice qualitative researcher, I was extra mindful about the subjectivity required when interpreting data whilst also needing to approach the analysis in a rigorous and transparent way. For instance, it was quite challenging during the identification of themes and subthemes. Although seeking patterns in the data should be focused, my indecisiveness and reluctance in removing irrelevant codes within the

process slowed me down and this made me feel inadequate and inferior when conducting the research. This was particularly challenging for me as every single code appeared important to me. However, it was impossible to report everything shared by participants in the paper. In order to counteract the feeling of insecurity and maintain the validity and quality of the research, support from research supervisors was regularly sought throughout the research process. It was noticed that I have learnt to become more insightful after the completion of the research project albeit I may still feel somewhat inadequate in conducting qualitative research in the future.

Conclusion

Reflective practice is often viewed as a framework of inquiry, an approach to enhance professional learning, that further compliments the didactic training approach. Reflective practice is increasingly encouraged across healthcare professionals to improve professional practice and learning. Similarly, this concept has been regarded as a core competency for clinical psychology as stated in the guidelines of various professional bodies and registration authorities including in the UK. The systematic review has summarised and critically appraised the quality of the available reflective measures. Given the adequate to good psychometric properties and the adequate to high quality of the studies involved the Reflective Questionnaire and Self-Reflection and Insight Scale were recommended for use in measuring reflective practice within healthcare professionals. The empirical study came from a different, qualitative, perspective and was interested in how reflective practice competencies can be developed through the use of supervision. It found that a safe and respectful supervision environment was pre-requisite to the promotion of reflective practice and particular areas that enhance this were reported. In addition,

the performance-driven attitudes of TCPs and the awareness of inhibitors to reflection were found to be prominent in the engagement of reflective practice.

Both studies noted the lack of an agreed definition of the concept of reflective practice and the implications of this for measuring and developing competencies in this area. Future studies that aim to generate a mutual understanding of the concept of reflective practice within a specific context are strongly recommended. This could then further inform the development of reflective measures that aim to monitor the progression of reflective practice including through the use of supervision.

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Appendix A

Appendix A. Appraisal Questions from the Critical Appraisal of a Questionnaire Study (Roever, 2016)

Appraisal Questions
What information did the researchers seek to obtain? Was there a clear research question, and was this important and sensible? Was a questionnaire the most appropriate research design for this question, what design might have been more appropriate?
What was the sampling frame and was it sufficiently large and representative? Did all participants in the sample understand what was required of them, and did they attribute the same meaning to the terms in the questionnaire?
Were there any existing measures (questionnaires) that the researchers could have used? If so, why was a new one developed and was this justified?
Were the views of consumers sought about the design, distribution, and administration of the questionnaire?
What claims for reliability and validity have been made, and are these justified? Did the questions cover all relevant aspects of the problem in a non-threatening and non-directive way? Were open-ended (qualitative) and closed-ended (quantitative) questions used appropriately? Was a pilot version administered to participant's representative of those in the sampling frame, and the instrument modified accordingly?
What claims for validity have been made, and are they justified? (In other words, what evidence is there that the instrument measures what it sets out to measure?)
What claims for reliability have been made, and are they justified? (In other words, what evidence is there that the instrument provides stable responses over time and between researchers?)
Was the title of the questionnaire appropriate and if not, what were its limitations?
What formats did the questionnaire take, and were open and closed questions used appropriately?
Were easy, non-threatening questions placed at the beginning of the measure and sensitive ones near the end?
Was the questionnaire kept as brief as the study allowed? What was the response rate and have non-responders been accounted for?
Did the questions make sense, and could the participants in the sample understand them? Were any questions ambiguous or overly complicated?
Did the questionnaire contain adequate instructions for completion—e.g. example answers, or an explanation of whether a ticked or written response was required?
Were participants told how to return the questionnaire once completed?

Appendix A. Appraisal Questions from the Critical Appraisal of a Questionnaire Study (Cont'd)

Did the questionnaire contain an explanation of the research, a summary of what would happen to the data, and a thank you message?
Was the questionnaire adequately piloted in terms of the method and means of administration, on people who were representative of the study population?
How was the piloting exercise undertaken? What details are given?
In what ways was the definitive instrument changed as a result of piloting?
What was the sampling frame for the definitive study and was it sufficiently large and representative?
Was the instrument suitable for all participants and potential participants? In particular, did it take account of the likely range of physical/mental/cognitive abilities; language/literacy, understanding of numbers/scaling, and perceived threat of questions or questioner?
How was the questionnaire distributed?
How was the questionnaire administered?
Were the response rates reported fully, including details of participants who were unsuitable for the research or refused to take part?
Have any potential response biases been discussed?
What sort of analysis was carried out and was this appropriate? (e.g. correct statistical tests for quantitative answers, qualitative analysis for open ended questions)
What measures were in place to maintain the accuracy of the data, and were these adequate?
Is there any evidence of data dredging—that is, analyses that were not hypothesis driven?
What were the results and were all relevant data reported?
Are quantitative results definitive (significant), and are relevant non-significant results also reported?
Have qualitative results been adequately interpreted (e.g. using an explicit theoretical framework), and have any quotes been properly justified and contextualized?
Was the analysis appropriate (e.g. statistical analysis for quantitative answers, qualitative analysis for open-ended questions) and were the correct techniques used? Were adequate measures in place to maintain accuracy of data?
What do the results mean and have the researchers drawn an appropriate link between the data and their conclusions?
Have all relevant results ('significant' and 'non-significant') been reported? Is there any evidence of 'data dredging' (i.e., analyses that were not 'hypothesis driven')?
Have the researchers drawn an appropriate link between the data and their conclusions?

Appendix A. Appraisal Questions from the Critical Appraisal of a Questionnaire Study (Cont'd)

Have the findings been placed within the wider body of knowledge in the field (e.g. via a comprehensive literature review), and are any recommendations justified?
Can the results be applied to your organization?
Conflicts of interest are declared.
Rate the overall methodological quality of the study, using the following as a guide: High quality (++) : Majority of criteria met. Little or no risk of bias. Acceptable (+) : Most criteria met. Some flaws in the study with an associated risk of bias. Low quality (-) : Either most criteria not met, or significant flaws relating to key aspects of study design. Reject (0) : Poor quality study with significant flaws. Wrong study type. Not relevant to guideline.

Appendix B

Appendix B. The Critical Appraisal Checklist for a Questionnaire Study (NICE clinical guideline 143, 2012)

Critical appraisal checklist for a questionnaire study

Research question and study design	
Was a questionnaire the most appropriate method?	
Validity and reliability	
Have claims for validity been made, and are they justified? (Is there evidence that the instrument measures what it sets out to measure?)	
Have claims for reliability been made, and are they justified? (Is there evidence that the questionnaire provides stable responses over time and between researchers?)	
Format	
Are example questions provided?	
Did the questions make sense, and could the participants in the sample understand them? Were any questions ambiguous or overly complicated?	
Piloting	
Are details given about the piloting undertaken	
Was the questionnaire adequately piloted in terms of the method and means of administration, on people who were representative of the study population?	
Sampling	
Was the sampling frame for the definitive study sufficiently large and representative?	
Distribution, administration and response	
Was the method of distribution and administration reported	
Were the response rates reported, including details of participants who were unsuitable for the research or refused to take part?	
Have any potential response biases been discussed?	
Coding and analysis	
What sort of analysis was carried out and was this appropriate? (e.g. correct statistical tests for quantitative	

Appendix B. The Critical Appraisal Checklist for a Questionnaire Study (cont'd)

answers, qualitative analysis for open ended questions)	
Results	
Were all relevant data reported?	
Are quantitative results definitive (significant), and are relevant non-significant results also reported?	
Have qualitative results been adequately interpreted (e.g. using an explicit theoretical framework), and have any quotes been properly justified and contextualised?	
Conclusions and discussion	
Have the researchers drawn an appropriate link between the data and their conclusions?	
Have the findings been placed within the wider body of knowledge in the field (e.g. via a comprehensive literature review), and are any recommendations justified?	

Appendix C

Appendix C. Critical Appraisal of Qualitative Studies (Centre for Evidence Based Medicine, n.d.)

CRITICAL APPRAISAL OF QUALITATIVE STUDIES



Rationale for research: Does the paper describe an important clinical problem and is the question clearly formulated?

If yes, continue with the form below.

If no, find another paper!

Was a qualitative approach appropriate?

What should I look for?

Is the question being asked seeking to further understanding of people's views, opinions and/or experiences in relation to a specific setting/scenario/circumstance?

Where do I find the information?

The Title, Abstract and Introduction/Background should tell you whether a qualitative approach was appropriate for the question being asked.

In this paper

Yes

No

Unclear

Comment:

Was the sampling strategy appropriate for the approach?

What should I look for?

How were the participants/setting(s) selected? Does the sample include a range of experiences (maximum variation sample), where all relevant 'variables' are accounted for, e.g. gender, age, geographical location, severity of condition, social support, socio-economic background, access to services, ethnicity?

A convenience sample is seldom a good sampling choice.

Where do I find the information?

The Methods should tell you how patients were recruited and selected.

In this paper

Yes

No

Unclear

What were the data collection methods?

What should I look for?

Are data collection methods described in sufficient detail to allow you to repeat the study? Are they transparent and appropriate? E.g. Interviews are useful to explore individual experience(s); Focus groups are useful to explore views of a particular group or elicit information that is generated during group discussions.

Where do I find the information?

Look in the Methods section for data collection information, including interview guides and field notes.

In this paper

Yes

No

Unclear

Comment:

How were data analysed and how were these checked?

What should I look for?

Was the data analysis approach appropriate for the methodology used? E.g. A grounded theory study needs to include constant comparison. Are the analytical steps explained in detail (are they transparent)? Are the steps to ensure 'quality control' described? E.g. Double coding, research team discussion of identified item, respondent validation.

Where do I find the information?

The Methods section should provide sufficient information about how data were analysed.

In this paper

Yes

No

Unclear

Comment:

Is the researcher's position described?

What should I look for?

It is ideal that the researcher(s) clearly state their position in relation to the research question. For example – their background, gender, and existing knowledge or personal experience of the topic to be researched.

Where do I find the information?

Look in the Methods/Results/Discussion section(s) to see if there is some mention of the researcher's position as part of the research process.

Appendix C. Critical Appraisal of Qualitative Studies (cont'd)

In this paper

Yes

No

Unclear

Comment:

What were the results?

Do the results make sense?

What should I look for?

Do the results answer the question, do they make sense and are they credible? (Credibility). Are the themes/theoretical concepts presented credible and do they relate to the research question?

What does it mean?

Look in the findings/results section: Have the authors provided a range of data (quotes) to support their interpretation (themes/ theoretical concepts) of data? Are the quotes indexed so they could be traced back to the original data set? For example: patient/participant #2.

Have authors provided 'negative cases' i.e. narratives that do not fit the identified themes/ theoretical framework. For example where some participants' experiences differ from the main findings (think outliers!)

Have the authors provided context (background to participant) for quotes in order to interpret meaning? This should be relevant to the findings discussed, for example age and gender/ length or severity of condition, socio economic background, educational background, etc.

In this paper

Yes

No

Unclear

Comment:

Are the conclusions drawn justified by the results?

What should I look for?

How well does the analysis explain why people behave in the way they do?
 How comprehensible would this explanation be to a thoughtful participant from the setting (can participants/ patients 'see' themselves in the interpretation of data)?
 How well does the explanation fit with what we know already and if not why not?

Where do I find the information?

Look in the Discussion/Conclusion sections of the paper (although some predominately qualitative journals merge findings and discussion).

Check whether the authors draw on examples of data when providing explanations.

Look for references to previous research in this area and existing theory and whether these are discussed in relation to findings and explanations offered by authors.

Does the paper offer a 'so what' recommendation?

In this paper

Yes

No

Unclear

Comment:

Are the finding transferable to other clinical settings?

What should I look for?

This may not be applicable to all studies using qualitative methods (e.g. exploratory, pilot studies). However, research using maximum variation sampling and particularly theoretical sampling needs to demonstrate that the findings are transferable to other settings. E.g. A study aims to explore experiences of breathlessness in COPD and a true theoretical/ maximum variation sample has been recruited then the findings are transferrable to other clinical settings with a similar context, E.g. includes a range of illness experiences, age, gender, socio-economic background, illness severity. However if the sample includes only white, middle class men in their 50's, then this is not maximum variation sampling and cannot be transferred to other settings.

Where do I find the information?

Check the sampling information in the Methods section. Then compare the sampling strategy mentioned with the actual participant sample recruited in the Findings section. Did the authors recruit the sample they set out to recruit?

In the Discussion/Conclusion section check whether the authors discuss the transferability of the findings. If not check if the authors have outlined whether the findings are limited to a particular context as part of the limitations of the study.

True theoretical sampling as described in Grounded Theory Methodology is guided by emerging themes during constant comparative analysis. This is particular to this methodology so does not apply to all other qualitative methodologies. If this methodology is used, steps to illustrate how theoretical sampling has been followed in the research process should be described throughout the Methods section.

Appendix C. Critical Appraisal of Qualitative Studies (cont'd)

In this paper

Yes

No

Unclear

Comment:

Reference

Adapted from Greenhalgh, T and Taylor, R. How to Read a Paper: Papers That Go beyond Numbers (Qualitative Research). *BMJ: British Medical Journal*, Vol. 315, No. 7110 (Sep. 20, 1997), pp. 740-743

**CRITICAL APPRAISAL OF
QUALITATIVE STUDIES**



Appendix D

Appendix D. Summary Table of Quality Appraisal Measure and Rating

Study	Reference (year)	Scale Used	Research Aim & Study Design		Sampling	
			Was the study aim clearly stated in this study?	Is questionnaire an appropriate study design in this study?	Was the sampling sufficiently large and representative in this study?	Was the sampling approach appropriate in this study?
1	Kember & Leung (2000)	RQ	Y	Y	Y	Y
2	Phan (2009)	RQ	Y	Y	Y	Y
3	Dunn & Musolino (2011)	RQ	Y	Y	Y	Y
4	Lethbridge et al. (2013)	RQ	Y	Y	Y	Y
5	Tricio et al. (2015)	RQ	Y	Y	Y	Y
6	Grant et al. (2002)	SRIS	Y	Y	N	Y
7	Lowe et al. (2007)	SRIS	Y	Y	N	Y
8	Roberts & Stark (2008)	SRIS	Y	Y	Y	Y
9	Pai (2015)	SRIS	Y	Y	Y	Y
10	Pai (2016)	SRIS	Y	Y	N	Y
11	Sobral (2000)	RLS	Y	Y	Y	Y
12	Sobral (2001)	RLS	Y	Y	Y	Y
13	Aukes et al. (2007)	GRAS	Y	Y	Y	Y
14	Groot et al. (2012)	CRWB	Y	Y	Y	Y
15	Levine (2014)	RLIQ	Y	Y	N	Y
16	Renner et al. (2014)	10-item	Y	Y	Y	Y
17	O'Reilly & Milner (2015)	37-item	Y	Y	Y	Y
18	Priddis & Rogers (2018)	RPQ	Y	Y	N	Y

Appendix D. Summary Table of Quality Appraisal Measure and Ratings (cont'd)

Study	Format				Piloting
	Was the title of questionnaire appropriate?	Were instructions for completion adequate in this study?	Were example questions provided in this study?	Were questions clear and easy to understand?	Was the questionnaire adequately piloted/reported? (method, administration, representativeness)
1	Y	Y	Y	Y	Y
2	Y	Y	Y	Y	N/A
3	Y	Y	N	Unclear	N/A
4	Y	Y	Y	Y	Y
5	Y	Y	Y	Y	N/A
6	Y	Y	Y	Y	N
7	Y	Y	N	Y	N/A
8	Y	Y	Y	Y	N/A
9	Y	Y	N	Y	N/A
10	Y	Y	N	Y	N/A
11	Y	Y	Y	Y	N/A
12	Y	Y	Y	Y	N/A
13	Y	Y	Y	Y	Y
14	Y	Y	Y	Y	N
15	Y	Y	Y	Y	N/A
16	Unclear	Y	Y	Y	N
17	Unclear	Y	Y	Y	Y
18	Y	Y	Y	Y	Y

Appendix D. Summary Table of Quality Appraisal Measure and Ratings (cont'd)

Study	Psychometric Properties			Distribution, Administration and Response		
	Was the origin of construct clearly stated in this study?	Have claims for validity been made and justified in this study?	Have claims for reliability been made and justified in this study?	Was the method of distribution and administration reported in this study?	Were response rates reported in this study?	Have any potential response biases been discussed in this study?
1	Y	Y	Y	Y	Y	N
2	Y	N	N	Y	N	N
3	Y	Y	Y	Y	Y	N
4	Y	Y	Y	Y	N	Y
5	Y	Y	Y	Y	Y	Y
6	Y	Y	Y	Y	N	Y
7	N	Y	Y	Y	Y	N
8	Y	Y	Y	Y	Y	Y
9	Y	Y	Y	Y	Y	Y
10	Y	Y	Y	Y	Y	N
11	Y	Y	Y	Y	Y	N
12	Y	Y	Y	Y	Y	N
13	Y	Y	Y	Y	N	N
14	Y	Y	Y	Y	Y	Y
15	Y	N	Y	Y	N	Y
16	Y	Y	Y	Y	Y	N
17	Y	N	N	Y	Y	Y
18	Y	N	Y	Y	N	Y

Appendix D. Summary Table of Quality Appraisal Measure and Ratings (cont'd)

Study	Analysis			Discussion & Conclusion			
	Was the type of analysis appropriate in this study?	Were both significant and non-significant results reported in this study?	Were qualitative results been adequately interpreted and justified in this study?	Was appropriate link between the data and conclusion drawn in this study?	Are recommendations justified in this study?	Can the questionnaire be used for healthcare professionals?	Were conflicts of interests declared in this study?
1	Y	Unclear	N	Y	Y	Y	N
2	Y	Y	N/A	Y	Y	Y	N
3	Y	Y	N/A	Y	Y	Y	N
4	Y	Y	N/A	Y	Y	Y	N
5	Y	Y	Unclear	Y	Y	Y	N
6	Y	Y	N/A	Y	Y	Y	N
7	Unclear	N	Y	Y	Y	Y	N
8	Y	Y	N/A	Y	Y	Y	Y
9	Y	Y	N/A	Y	Y	Y	Y
10	Y	Y	N/A	Y	Y	Y	N
11	Y	Y	N/A	Y	Y	Y	N
12	Y	Y	N/A	Y	Y	Y	N
13	Y	Y	Unclear	Y	Y	Y	N
14	Y	Y	N/A	Y	Y	Y	N
15	Y	Y	N/A	Unclear	Y	Y	N
16	Y	Y	N/A	Y	Y	Y	Y
17	Y	Y	Y	Y	Y	Y	Y
18	Y	Y	N/A	Y	Y	Y	Y

Appendix D. Summary Table of Quality Appraisal Measure and Ratings (cont'd)

Study	Ethics		Quality Rating ^a	Overall Quality ^b	First Reviewer	Checker
	Was the ethical approval stated in this study?	Is the role of researcher clearly described in this study?				
1	N	N	75%	++ ^c	S.M.	
2	N	N/A	71%	+ ^d	S.M.	S.C.
3	Y	N	77%	++	S.M.	
4	Y	N	87%	++	S.M.	
5	Y	N	87%	++	S.M.	
6	N	N	74%	+	S.M.	
7	N	N	61%	+	S.M.	S.C.
8	Y	Y	100%	++	S.M.	
9	Y	N/A	95%	++	S.M.	
10	Y	N/A	81%	++	S.M.	
11	N	N/A	86%	++	S.M.	
12	N	N/A	86%	++	S.M.	S.C.
13	N	N	75%	++	S.M.	
14	N	N	83%	++	S.M.	
15	Y	N/A	76%	++	S.M.	S.C.
16	Y	Y	87%	++	S.M.	
17	Y	Y	88%	++	S.M.	
18	N	N	78%	++	S.M.	

Note. Y = yes; N = no; N/A = not applicable. Adapted from “Critical appraisal of a questionnaire study” by L. Roever, 2016, *Evidence Based Medicine and Practice*, 1:2, p.e110, and “Critical Appraisal Checklist for a Questionnaire Study” by National Institute for Health and Care Excellence (NICE) clinical guideline 143, 2012, p.143-144.

^a Quality rating is calculated by dividing the total number of Y by the total number of checklist items (e.g., 24; excluding the number of N/As)

^b Overall quality is derived from the percentage rating: $\geq 75\%$ = High Quality (++); $\geq 50\%$ and $< 75\%$ = Acceptable (+); $\geq 25\%$ and $< 50\%$ Low Quality (-); $< 25\%$ = Reject (o), with written permission from L. Roever.

^c ++ = Majority of criteria met, little or no risk of bias. ^d + = Most criteria met, some flaws in the study with an associated risk of bias.

Appendix E

Appendix E. Strengths and Limitations of the Questionnaire Studies

Instruments	Strengths	Limitations
RQ	<ul style="list-style-type: none"> • Simple and user-friendly • Satisfactory to good psychometric properties • Measure the levels of engagement in reflection • Can be adapted to suit different study contexts or professional practices 	<ul style="list-style-type: none"> • Homogeneous sample. • Convenience or purposive sampling that may introduce self-selection bias
SRIS	<ul style="list-style-type: none"> • Simple and user-friendly • Good psychometric properties • Measure engagement in reflection and insight • Can be adapted to suit different study contexts or professional practices 	<ul style="list-style-type: none"> • Homogeneous sample • Convenience or purposive sampling
RLS	<ul style="list-style-type: none"> • Short and easily self-administered • Moderate to good psychometric properties • Measure reflection in learning 	<ul style="list-style-type: none"> • Homogeneous sample • Purposive sampling • Only focus on reflection in learning
GRAS	<ul style="list-style-type: none"> • Simple and user-friendly • Satisfactory psychometric properties • Measure personal reflection • Large sample size 	<ul style="list-style-type: none"> • Homogeneous sample • Convenience or purposive sampling

CRWB	<ul style="list-style-type: none"> • Simple and user-friendly • Large sample size • Generalisability to other healthcare professionals 	<ul style="list-style-type: none"> • Homogeneous sample • Convenience or purposive sampling • Questionable reliability
RLIMQ	<ul style="list-style-type: none"> • Simple and user-friendly • Measure reflection and interaction between learner and instructor 	<ul style="list-style-type: none"> • Convenience sampling • Small sample size • Unclear psychometric properties
10-item scale	<ul style="list-style-type: none"> • Short and easily self-administered • Good psychometric properties • Generalisability to other healthcare professionals 	<ul style="list-style-type: none"> • Questionnaire title not available • Convenience or purposive sampling
37-item scale	<ul style="list-style-type: none"> • Mixed method scale • Generalisability to other healthcare professionals 	<ul style="list-style-type: none"> • Convenience or purposive sampling • Small sample size • Not fully validated
RPQ	<ul style="list-style-type: none"> • Simple and user-friendly • Satisfactory to good internal consistency • Tapped on various aspects of reflective practice including appraisal of supervision measure • Generalisability to other healthcare professionals 	<ul style="list-style-type: none"> • Small sample size for mental health professionals • Not fully validated • Convenience sampling

Appendix F



Faculty of Medicines and Health Science
Doctoral Programme in Clinical Psychology
University of East Anglia

PARTICIPANT INFORMATION SHEET

Study Title: Clinical Psychologists' Experience of Cultivating Reflective Practice in Trainee Clinical Psychologists during Supervision: A qualitative study.

We would like to invite you to take part in a research study that aims to examine the use of reflective practice during clinical supervision for trainee clinical psychologists. Before you decide whether you would like to take part in this study, it is important to understand why the research is being conducted and what it would involve for you. This information sheet provides you with more information about the study. Please take time to read the following information carefully. If you have any questions regarding the research, please get in touch with a member of the research team using the contact details provided in this sheet.

Why is this research being done?

The research project is being conducted in partial fulfilment of the requirements for the degree of Doctorate in Clinical Psychology at the University of East Anglia (UEA). The Health and Care Professions Council (HCPC) have highlighted the use of reflection by registrant practitioner psychologists in the Standard of Proficiency Guidelines (2015). Similarly, the British Psychological Society (BPS) in the Standards for Doctoral Programmes in Clinical Psychology (2014) require trainees to develop competencies as “reflective scientist practitioners”. As such, reflective skills are seen as an essential component for the development of competent professionals. Given the increasing importance placed in reflective practice and professional education, it is hoped that the current study can provide a comprehensive overview of the experience of clinical supervisors in cultivating reflective skills in trainee clinical psychologists. This research aims to provide useful information that may help in the future development of reflective skills in the training of clinical psychologists.

Why have I been invited to take part?

We are inviting qualified clinical psychologists who use reflective practice and have experience in supervising trainee clinical psychologists to take part in this study. If you agree to participate in this study, we will conduct a one-to-one interview regarding your experience in using reflective practice in supervision and developing competencies in reflection in trainee clinical psychologists.

Do I have to take part?

It is entirely your decision if you would like to take part in this study. You will be requested to sign a consent form if you wish to participate in the research. You can withdraw from the study up to 24 hours after the interview has been conducted without providing a reason. This is prior to the commencement of data analysis, and the data will be destroyed.

What does the study involve if I decide to take part?

A one-to-one interview will be conducted by me at UEA or your workplace. The interview contains questions about; your experience in supervising trainee clinical psychologists, your experience in applying reflective practice in both clinical settings and during supervision, what you find useful and/or difficult in promoting reflective skills in trainee clinical psychologists, as well as your overall perceptions on reflective practice.

How much of your time will participation involve?

The interview will take approximately 60 minutes and will be audio recorded.

What are the possible benefits of taking part?

Whilst the study is unlikely to be of any direct benefit to you personally, the results of the study could help to generate a better understanding of how to cultivate the use of reflective practice in trainee clinical psychologists.

What are the possible risks of taking part?

We believe that there are no significant risks involved in participating in the present study. In the unlikely event of any concerns about potential misconduct or unethical practice being raised, confidentiality will be breached and immediate advice will be sought from the research supervisors. Appropriate support will be recommended where appropriate to ensure your wellbeing and the safety of the public.

Will your participation in the project remain confidential?

Your responses during the interview will be audio recorded and subsequently transcribed and used for this project only. The audio recording will be used to check for the accuracy of the transcription and subsequently deleted. The identity of your supervisees is not required or requested in this study and hence any trainee identifiable information should not be discussed during the interview.

Your identity and any other identifiable information will be replaced with pseudonyms or numeric codes to maintain confidentiality. In the unlikely event of any concern regarding misconduct or unethical practice being raised the researcher will need to break this confidentiality. This will be discussed with the projects supervisors in the first instance and Trust protocols for reporting will be followed.

What will happen to the results of the research?

The results of the study will be analysed and written up in an empirical paper and included in the researcher's thesis portfolio. The research findings may also be published in psychological journals. As noted above all personally identifying information will be removed throughout this process.

Will my information be kept confidential?

The research team (i.e. researcher, primary and secondary research supervisor) at UEA will have access to your personal data but it will not be shared with anyone outside the research team. All information relating to the study will remain confidential and anonymous. You will be given a numeric code (i.e. participant number) so that we know which information is yours and this information will be strictly kept confidential. All information will be stored in a locked filing cupboard or encrypted computer drive which is only accessible by the research team. All your personal data will not be kept at the end of the study and all data will be destroyed 10 years after the study has ended in accordance with Data Protection Act (1998). The data from the interview will be transcribed by the researcher and a professional transcription service, which is subject to a confidentiality agreement, will also be used.

Who has approved the research?

This study has been assessed and granted ethical approval by the Research Ethics Committee, Faculty of Medicine and Health Sciences, UEA and the Health Research Authority (reference number here).

What happens now?

If you are interested in taking part in this research, please contact me at **s.ooi@uea.ac.uk** to arrange a suitable time and date to conduct the interview. You will have an opportunity to ask any further questions about the study and we will ask you to sign a consent form prior to the start of the interview.

Where can I get further information?

If you have any queries about the project or would like to discuss any aspects of the research in more detail, you can contact **Su Min Ooi (Ivy) on (study mobile number here) or email at s.ooi@uea.ac.uk or Professor Siân Coker (the primary research supervisor) at s.coker@uea.ac.uk.**

Where can I make a complaint?

If you are unhappy with any aspects of the project, please discuss this with the research team.

If you would like to complain about this research, you can contact Professor Ken Laidlaw (the Programme Director) at k.laidlaw@uea.ac.uk.

Researcher

Su Min Ooi (Ivy), Trainee Clinical Psychologist, University of East Anglia

Supervisor

Professor Siân Coker, Professor of Clinical Psychology, University of East Anglia

Dr Paul Fisher, Clinical lecturer in Clinical Psychology, University of East Anglia

Appendix G



Faculty of Medicines and Health Science
Doctoral Programme in Clinical Psychology
University of East Anglia

CONSENT FORM

Title of project: Clinical Psychologists' Experience in Cultivating Reflective Practice in Trainee Clinical Psychologists during Supervision: A qualitative study.

Name of Researcher: Su Min Ooi (Ivy) Trainee Clinical Psychologist, University of East Anglia

- Please initial
1. I confirm that I have read the participant information sheet for the above study. I have been given the opportunity to consider the information, ask questions and have had these answered satisfactorily.
 2. I understand that my participation is voluntary and that I am free to withdraw within 24 hours after the interview without giving any reason, without my reputation or legal rights being affected.
 3. I understand that all information collected as part of the study will be treated confidentially and that relevant sections of data collected during the study (including personal data) will only be accessed by individuals from the UEA research team (researcher, primary and secondary supervisors). I give permission to these individuals to have access to my data.
 4. I understand that the data collected from me will be fully anonymised and will only be used for this present study.
 5. I agree to be audio recorded during the interview.
 6. I understand that confidentiality will be breached if there are concerns about potential misconduct or unethical practice, as outlined in the PIS.
 7. I agree to take part in the above study.
 8. I would like to receive a summary of the study findings.

Name of **Participant**: _____ Signature: _____ Date: _____

Name of **Researcher**: _____ Signature: _____ Date: _____

1 for participant, 1 for researcher

Appendix H

Topic Guide

1. Why don't we start by you telling me about yourself?
Prompt: How long since you qualified? Tell me more about your working experience. What services are you currently working in? How many years since you first became a supervisor?
2. Can you tell me about your work here as a clinical psychologist just so that I have an overview of what your clinical job involves?
3. Can you describe your experience in supervising trainee clinical psychologists?
Prompt: How do you see your role as a supervisor?
4. Can you tell me about your understanding of reflective practice?
Prompt: What is your perspective of reflective practice? What does reflective practice mean to you?
5. What are your views on the use of reflective practice in supervision?
Prompt: What do you try to achieve? What do you think is important?
6. Can you describe your experience in using reflective practice in supervision?
Prompt: Supervising others and being supervised. Could you elaborate more about that?
7. Can you tell me the ways you help develop reflective skills in trainee clinical psychologists?
Prompt: How do you develop the competency of using reflective practice in trainee clinical psychologists? What strategies do you employ in promoting the use of reflective skills in your supervisees? Ask for example? Proportion of time you spend on it? Planned or unplanned?
8. Can you describe something that stands out for you in how you have promoted the use of reflection in trainee clinical psychologists during supervision?
Prompt: Are there any skills or strategies that you find helpful in promoting reflective practice in trainee clinical psychologists? What are the helpful ways to enhance or increase the use of reflective skills in your supervisees? How do you know if there is an impact on the RP that you are trying to promote (successful)?
9. Have you encountered any barriers when using reflective practice with trainee clinical psychologists during supervision? If so can you describe what these were.
Prompt: Are there any obstacles that impeded the use of reflective practice during your supervision with trainee clinical psychologists? What are the common difficulties your supervisees expressed when developing/using reflective skills? barrier in term time, what the supervisee brings
10. Can you tell me what support you have received as a supervisor?
Prompt: What helps in the development of your supervisory role? Formally, informally, from UEA?
11. Can you tell me what support you have received as a supervisor in developing reflective practice for use in supervision?

Appendix I

Faculty of Medicine and Health Sciences Research Ethics Committee



Su Min Ooi
MED

Research & Innovation Services
Floor 1, The Registry
University of East Anglia
Norwich Research Park
Norwich, NR4 7TJ

Email: fmh.ethics@uea.ac.uk

Web: www.uea.ac.uk/researchandenterprise

18.1.18

Dear Su Min,

Title: Clinical Psychologists' experience of cultivating reflective practise in trainee clinical psychologists during supervision: a qualitative study

Reference: 2017/18 - 52

The submission of your above proposal has been considered by the Faculty Research Ethics Committee and we can confirm that your proposal has been approved.

Please could you ensure that any further amendments to either the protocol or documents submitted are notified to us in advance and also that any adverse events which occur during your project are reported to the Committee. Please could you also arrange to send us a report once your project is completed.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'M J Wilkinson', is written over a horizontal line.

Professor M J Wilkinson
Chair
FMH Research Ethics Committee

Appendix J



Skipton House
80 London Road
London SE1 6LH

Miss Su Min Ooi
Department of Clinical Psychology
Elizabeth Fry Building
University of East Anglia
NR4 7TJ

Email: hra.approval@nhs.net

12 April 2018

Dear Miss Ooi

Letter of HRA Approval

Study title: Clinical Psychologists' Experience in Cultivating Reflective Practice in Trainee Clinical Psychologists during Supervision: A qualitative study.
IRAS project ID: 229996
Sponsor: University of East Anglia

I am pleased to confirm that HRA Approval has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further from the HRA.

How should I continue to work with participating NHS organisations in England?

You should now provide a copy of this letter to all participating NHS organisations in England, as well as any documentation that has been updated as a result of the assessment.

Following the arranging of capacity and capability, participating NHS organisations should formally confirm their capacity and capability to undertake the study. How this will be confirmed is detailed in the "*summary of HRA assessment*" section towards the end of this letter.

You should provide, if you have not already done so, detailed instructions to each organisation as to how you will notify them that research activities may commence at site following their confirmation of capacity and capability (e.g. provision by you of a 'green light' email, formal notification following a site initiation visit, activities may commence immediately following confirmation by participating organisation, etc.).

It is important that you involve both the research management function (e.g. R&D office) supporting each organisation and the local research team (where there is one) in setting up your study. Contact details of the research management function for each organisation can be accessed [here](#).

How should I work with participating NHS/HSC organisations in Northern Ireland, Scotland and Wales?

HRA Approval does not apply to NHS/HSC organisations within the devolved administrations of Northern Ireland, Scotland and Wales.

If you indicated in your IRAS form that you do have participating organisations in one or more devolved administration, the HRA has sent the final document set and the study wide governance report (including this letter) to the coordinating centre of each participating nation. You should work with the relevant national coordinating functions to ensure any nation specific checks are complete, and with each site so that they are able to give management permission for the study to begin.

Please see [IRAS Help](#) for information on working with Northern Ireland, Scotland and Wales.

How should I work with participating non-NHS organisations?

HRA Approval does not apply to non-NHS organisations. You should work with your non-NHS organisations to [obtain local agreement](#) in accordance with their procedures.

What are my notification responsibilities during the study?

The attached document "*After HRA Approval – guidance for sponsors and investigators*" gives detailed guidance on reporting expectations for studies with HRA Approval, including:

- Registration of Research
- Notifying amendments
- Notifying the end of the study

The [HRA website](#) also provides guidance on these topics and is updated in the light of changes in reporting expectations or procedures.

I am a participating NHS organisation in England. What should I do once I receive this letter?

You should work with the applicant and sponsor to complete any outstanding arrangements so you are able to confirm capacity and capability in line with the information provided in this letter.

The sponsor contact for this application is as follows:

Name: Rachel Lindley

Tel: 01603597197

Email: r.lindley@uea.ac.uk

Who should I contact for further information?

Please do not hesitate to contact me for assistance with this application. My contact details are below.

Your IRAS project ID is 229996. Please quote this on all correspondence.

Yours sincerely

Chris Kitchen

Assessor

Email: hra.approval@nhs.net

Appendix K

Instructions for authors (*Reflective Practice*)

Thank you for choosing to submit your paper to us. These instructions will ensure we have everything required so your paper can move through peer review, production and publication smoothly. Please take the time to read and follow them as closely as possible, as doing so will ensure your paper matches the journal's requirements. For general guidance on the publication process at Taylor & Francis please visit our [Author Services website](#).



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Reflective Practice accepts the following types of article: original articles.

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Appendix L

Instructions for authors (*The Clinical Supervisor*)

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For bulleted lists

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Displayed equation ()

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