Feedback as an important education intervention is extensively used in clinical supervision (Bernard & Goodyear, 2019). Constructive feedback receives the most attention from researchers (e.g., Borders et al., 2017; Burkard et al., 2014; Rogers et al., 2019) for its functions and related difficulties for supervisees. The dominant focus of existing research is on feedback contents (e.g., Avent et al., 2015; Coleman et al., 2009; McKibben et al., 2019), supervisor's experiences of providing feedback (e.g., Borders et al., 2017; Burkard et al., 2014), or factors that hinder supervisees' receptivity of corrective feedback (e.g., Alexander & Hulse-Killacky, 2005; McKibben et al., 2019). Although the existing literature offers insights, most research tends to portray supervisees as recipients of feedback information and simplify their reactions to feedback (e.g., Borders et al., 2017; Hoffman et al., 2005).

Recently, there has been a new research trend of focusing more on supervisees' experiences of dealing with corrective feedback. Researchers developed instruments for examining supervisees' emotional reactions (Rogers et al., 2020) and the likelihood of using supervisory feedback (Goodyear et al., 2021). Similarly, scholars in higher education have also developed the concept of student feedback literacy (Sutton, 2012), arguing the importance of preparing students with feedback literacy to make the most of feedback. Currently, there is a lack of research that centers on supervisees' active role in the feedback process, explores the connections between supervisees' feedback literacy and their responses (e.g., emotional reactions, utilization of feedback) to corrective feedback, and considers other related important variables (e.g., supervisees' attachment anxiety, supervisory working alliance) in the feedback process.

 The study aimed to address the gap by assessing relationships among six dimensions of feedback literacy, other factors (i.e., supervisory working alliance, attachment anxiety) that have been evidenced to be important in supervision, and supervisees' responses to feedback (i.e., emotional response, likelihood of using feedback). The results highlighted the significant role of attachment anxiety in the supervisees' feedback engagement process, with higher levels of attachment anxiety associated with a lower likelihood of using feedback and more intense negative emotional responses to corrective feedback. Furthermore, the study revealed the moderating effects of supervisees' appreciation of feedback and attachment anxiety, and readiness to engage with feedback and attachment anxiety on supervisees' negative emotional responses after receiving feedback. Among the feedback literacy dimensions, commitment to change emerged as a significant predictor of negative emotional responses to corrective feedback. The study provided empirical evidence to better understand supervisees' experiences of dealing with supervisory corrective feedback. Implications for supervisors, supervisees, and researchers are discussed based on the results of the study.

THE INTERPLAY OF FEEDBACK LITERACY, ATTACHMENT ANXIETY, AND

SUPERVISORY WORKING ALLIANCE IN INFLUENCING SUPERVISEES'

EMOTIONAL RESPONSE AND LIKELIHOOD OF USING SUPERVISORY

FEEDBACK

by

Yu Pan

A Dissertation
Submitted to
the Faculty of The Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Greensboro

2024

Approved by

_____
Dr. Kelly Wester
Committee Chair

DEDICATION

This dissertation is dedicated to clinical supervisors and supervisees committed to continual growth and improvement. Your efforts make quality care more accessible to more people.

This dissertation written by Yu Pan has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

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April 23, 2024
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Date of Final Oral Examination

ACKNOWLEDGEMENTS

As the first in my big family to have the opportunity to study abroad, I hold the gift of education close to my heart. For me, education has been a journey of empowerment, understanding self and others, and building deeper connections with the world. I am profoundly grateful for the inspirational faculty, wise mentors, and dear friends who have walked beside me on this transformative doctoral path.

First, to my incredible dissertation committee - I could not have made it this far without your support and dedication. Dr. Kelly Wester, my dissertation chair, I can't put into words how grateful I am. You have nurtured my passion for research and helped me grow so much. Thank you for always pushing me to think more deeply, critically, embrace intellectual challenges. In those tough days, I am so grateful for your non-judgmental approach and patient guidance, to walk me through the fog and help me find the path. Your flexibility and constant support, especially during this past year's multiple challenges, have been a beacon of light. Dr. Borders, I am very thankful for your guidance and invaluable advice on my supervision research, which has helped me take my work to the next level and taught me the importance of patience. Dr. Deaton, your encouragement and example as a researcher and educator have inspired me to ignite the joy of research in students. Dr. Poulos, your humor is a delight, and I am grateful for the creative tools you have provided to help me build "bridges" to connect others.

To the other amazing CED faculty and Mitzi, your ongoing support is deeply appreciated. I especially want to recognize two professors who, though not on my committee, have had a huge impact on my journey. Dr. Chan - your ongoing mentorship and wisdom have profoundly shaped my path. Thank you for so generously sharing your time and energy. Dr. Jones - in my most vulnerable moments, you were a compassionate listener and source of encouragement. Our

continually propels me to break new ground. This chapter of my life is inextricably woven with the beautiful threads of your love and presence.）

As an international student studying 14,000 kilometers from home and pursuing a challenging Ph.D. in my second language, I've encountered many nuanced experiences that are challenging to put into words. I resonate with the sentiment that doing a Ph.D. as an international student is like playing a hard game in hard mode. I am deeply thankful for countless opportunities and reflective experiences during my doctoral studies, which have prompted me to think deeply about how I, as a future educator, as a group member, can contribute to creating safer, more open, and inclusive spaces where everyone can be seen and heard. At the same time, I am grateful to have met many international faculty, mentors, and students on this journey; it is your caring support that has given me a greater sense of belonging in the United States.

Finally, I would also like to extend my sincere thanks to the Southern Association for Counselor Education and Supervision (SACES) for their funding of this study.

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CHAPTER I: INTRODUCTION

Introduction

Feedback is extensively utilized in counselor education and is considered a fundamental component of clinical supervision (Bernard & Goodyear, 2019). Feedback not only protects clients' welfare but also promotes the professional and personal development of supervisees (Bernard & Goodyear, 2019; Borders et al., 2014). Supervisees rank feedback as the most helpful event in individual supervision (Fickling et al., 2017), and it is perceived as one of the common factors in education intervention in clinical supervision (Watkins & Scaturo, 2013). Although feedback plays an important role in supervision and is fundamental to facilitating supervisees' professional development and promoting clients' welfare, the scope and depth of feedback research remain limited. Specifically, understanding supervisee engagement in the feedback process has not been explored extensively.

Feedback has various types and classifications, for instance, formal feedback and summative feedback, and corrective and positive feedback. In the majority of research on feedback, corrective feedback receives the most attention (e.g., Borders et al., 2017; Burkard et al., 2014; Rogers et al., 2019) both in its importance in counselor training and challenges related to corrective feedback. Supervisees are expected to receive and use corrective feedback, as corrective feedback communicates the gaps between supervisees' current performance and desired performance (Claiborn & Goodyear, 2005), and helps supervisees to identify the areas they need to improve, enhancing their clinical competence (Bernard & Goodyear, 2019). However, despite the importance of corrective feedback, both supervisors and supervisees in supervision facing many challenges concerning its delivery and reception. Researchers show it's common for supervisees to have negative feelings (e.g., Rogers et al., 2020) when receiving

supervisory corrective feedback. Additionally, supervisees frequently experience negative reactions to supervisory feedback, including, but not limited to defensiveness, withdrawal, or being guarded (Borders et al., 2017; Burkard et al., 2014; Hoffman et al., 2005). Supervisors also reported challenges or concerns (e.g., negatively impact supervisory relationship, cause conflicts) of giving corrective feedback (e.g., Borders et al., 2017; Hoffman et al., 2005) resulting in hesitation in providing corrective feedback to their supervisees. However, within the existing literature, there is a limited scope and focus on feedback in supervision. As previously mentioned, the predominant research emphasis is on aspects of feedback delivery (e.g., feedback contents, feedback categories; e.g., Avent et al., 2015; Coleman et al., 2009; McKibben et al., 2019; Wahesh et al., 2017), supervisors' experiences of providing feedback (e.g., Borders et al., 2017; Burkard et al., 2014; Motley et al., 2014), or factors that hinder supervisees' receptivity of corrective feedback (e.g., childhood memories, supervisory relationships, attachment; e.g., Alexander & Hulse-Killacky, 2005; Heckman-Stone, 2003; Hoffman et al., 2005; McKibben et al., 2019).

Furthermore, research also reveals the importance of the supervisory relationships in the feedback process, which may impact supervisees' perceptions and reactions to feedback (McKibben et al., 2019). Trusting and secure relationships have been shown to facilitate supervisees' openness and receptivity to supervisory corrective feedback (Borders et al., 2017; Hoffman et al., 2005; McKibben et al., 2019). Conversely, weaker supervisory relationships may lead to supervisors' hesitations in giving corrective feedback, as they worry that corrective feedback might worsen the relationship, particularly in feedback areas that involve subjective perspectives (Burkard et al., 2014; Hoffman et al., 2005). However, there is limited quantitative research examining the supervisory working alliance's role in the feedback process. Some

researchers, like Goodrich and colleagues (2021), suggested testing the relationship between supervisory working alliance and supervisees' willingness and likelihood of using supervisory feedback, since supervisory working alliance has consistently been recognized as one of the most common factors (Ladany et al., 1999) and significantly impact supervision outcomes (e.g., Hutman & Ellis, 2020; Vandament et al., 2022). The initial explorations of feedback in those major directions (e.g., supervisory relationships, feedback delivery, and contents, supervisor's experience of providing feedback) enrich our understanding of supervisory feedback, as well as supervisees' and supervisors' experience with corrective feedback. However, while important, the existing studies lack nuanced explorations of supervisees' experiences of responding to corrective supervisory feedback - specifically how they understand and process supervisory corrective feedback, how they acknowledge the rationale of corrective feedback, and how they make plans to put supervisory feedback into action.

While the supervisory relationship is important to supervision outcomes, supervisees' reactions to the feedback provided in supervision are also influenced by their internal model of attachment (e.g., McKibben et al., 2019). Especially the combination of both attachment anxiety and avoidant attachment has been shown to decrease supervisees perceived supervisory relationships (McKibben & Webber, 2017). Additionally, attachment anxiety is linked to several feedback variables, as it could increase supervisees' cognitive distortion and then cause enhanced supervisees' difficulties in dealing with corrective feedback (Rogers et al., 2019), it negatively relates to supervisees' willingness or likelihood of using corrective feedback (Goodrich et al., 2021), and also positively relates to supervisees' negative emotional responses to feedback. Given the importance of supervisee's attachment style in relation to their supervisor,

attachment - along with the supervisory relationship - is important to consider when examining supervisee feedback engagement in clinical supervision.

Supervisees experience complex emotional reactions after receiving corrective supervisory feedback (Hulse-Killacky et al., 2006; Klein & Robinson, 2018; Rogers et al., 2020). Some common negative feelings are anger, disappointment, and embarrassment, which can be expected (Brown, 2010; Daniels & Larson, 2001; Hulse-Killacky et al., 2006; Rogers et al., 2020). Those negative emotional reactions are an important part of supervisees' responses to feedback, however, negative emotional reactions can cause difficulties in dealing with feedback (Rogers et al., 2020), and may distort the understanding of feedback (Rogers et al., 2020) and also may decrease supervisees' willingness to use feedback. To help understand the use of supervisory feedback, Goodrich and colleagues (2021) developed a measure to assess supervisees' behavioral tendencies after receiving feedback, especially focusing on supervisees' willingness and likelihood of using supervisory corrective feedback. The development of this measure can initiate the exploration of further understanding supervisees' complicated responses and engagement of supervisory feedback - specifically allowing the examination of supervisee feedback engagement with their likelihood to use feedback.

Researchers and educators recognize the need to prepare and train counselors-in-training to receive feedback, resulting in the development of training or experiential activities to support supervisees to work on feedback (e.g., Hulse & Robert, 2014; Swank & McCarthy, 2015). While the training was found to increase feedback competency, the training and activities developed usually focus more too on the supervisees' beliefs, attitudes, and efficacy about feedback, with little to no focus on feedback factors such as supervisees' skills or competencies needed in different feedback stages. This lack of focus on the larger feedback process for supervisees may

be due to the lack of a holistic model or theoretical framework that captures important aspects of feedback engagement for supervisees.

A feedback-related model in higher education may provide a more comprehensive understanding of feedback and its related process. In the past decade, researchers in higher education developed a construct called "feedback literacy" (Sutton, 2012; improved by Carless & Boud, 2018). , Feedback literacy centers on students' active role in the feedback process and provides a more systemic perspective to recognize students' skills or competencies and dispositions needed to maximize the feedback process (Zhan, 2022). Zhan (2022) did a comprehensive synthesis of feedback literacy literature and identified the six key dimensions of feedback literacy (i.e., eliciting, processing, enacting, appreciation of feedback, readiness to engage, and commitment to change). Zhan (2022) developed and validated a feedback literacy measure based on these six dimensions. The six dimensions incorporate competencies and needed skills in three key feedback processes and among three important feedback dispositions. The feedback literacy framework (Zhan, 2022) provides a process-based approach, emphasizing concrete feedback skills or feedback dispositions to optimize the benefits of feedback. This framework provides teachers or supervisors with a holistic approach to understanding students' engagement with feedback and how to maximize the value of feedback.

The feedback literacy framework (Zhan, 2022) has implications in the counseling field to help us examine supervisees' experience in the feedback process in a comprehensive way. This framework provides specific components, or dimensions, of the feedback process to examine what occurs throughout the feedback engagement process for supervisees that may impact the likelihood that they will use supervisory feedback and how it may result in supervisees' negative emotional experience when receiving corrective feedback. Combining the dimensions of the

feedback literacy framework, in combination with known influential factors in supervision (i.e., attachment to supervisor, supervisory working alliance), in relation to these outcomes (supervisory emotional reaction to feedback, likelihood of using feedback) could offer further insights on how we could prepare our supervisees in which areas of feedback competencies to further improve ideal outcomes of feedback practice.

Statement of Problem

While the existing counseling research offers valuable insights into understanding supervisory feedback, there are also notable issues in these studies. Most of the counseling research tends to portray supervisees as passive recipients of feedback by mainly focusing on their openness or persistence to feedback (e.g., Borders et al., 2017; Hoffman et al., 2005) instead of centering supervisees as active participants in the feedback process or revealing supervisees' complicated experiences of dealing or engaging with feedback (e.g., how they think or feel about corrective feedback). Recently, researchers like Rogers and colleagues (2020) and Goodrich and colleagues (2021) have begun to address these gaps by developing instruments to measure more specific supervisees' responses to corrective feedback (e.g., emotional response, willingness, or likelihood of using feedback). Additionally, in the higher education field, researchers have developed the concept of student feedback literacy (Sutton, 2012; improved by Carless & Boud, 2018), which emphasizes that students should have certain levels of competencies in different feedback stages and dispositions to maximize the feedback benefits. This perspective encourages educators and researchers to adopt a student-centered approach to examine the feedback practices, by reframing the process from a skills development lens.

However, in the counseling field, there is no existing research that centers on supervisees' active role in feedback processes, focuses on their engagement experiences with

feedback, and explores the connections between supervisees' feedback literacy and their nuanced responses to supervisory corrective feedback. Furthermore, supervisees' insecure attachments, especially attachment anxiety, may moderate this relationship, as it could cause cognitive distortion (Rogers et al., 2019) and impact supervisees' thinking and understanding of supervisory feedback. Researchers also found negative correlations between the supervisees' attachment anxiety and willingness or likelihood of using supervisory corrective feedback (Goodrich et al., 2021). Additionally, the supervisory working alliance is one of the common factors in the clinical supervision process and the most studied predictor of supervision outcome (e.g., Hutman & Ellis, 2020; Ladany et al., 1999; Vandament et al., 2022), which will also potentially impact supervisees' engagement with supervisory corrective feedback.

Purpose of the Study

The purpose of this study is to address the gap in the counselor education literature by examining relationships among the feedback dimensions in the feedback literacy framework (Zhan, 2022, i.e., eliciting, processing, enacting, appreciation of feedback, readiness to engage, and commitment to change) and other factors (i.e., supervisory working alliance, attachment anxiety) that have been evidenced to be important in supervision to outcomes of supervisory corrective feedback (i.e., feelings toward feedback, willingness or likelihood of using feedback). Using the feedback literacy framework, this researcher aims to center supervisees' active role in the feedback process by exploring supervisees' feedback engagement experiences of corrective feedback, and how they respond to feedback using the feedback literacy framework dimensions. This process will assist in framing the feedback process from a competence and skills development perspective. This study aims to explore the relationship between supervisee feedback literacy, supervisee's responses to supervisory corrective feedback (i.e., supervisees'

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emotional responses to corrective feedback, supervisees' willingness, and the likelihood of using feedback) when controlling supervisees perceive supervisory working alliance, and also if supervisees' levels of anxious attachment moderate this relationship.

Significant of Study

This study is the first to bring the concept of feedback literacy into the counseling field and explore the connection of six dimensions of feedback literacy to the supervisees' responses to supervisory corrective feedback - specifically negative emotional reactions and the likelihood of using supervisory feedback. The perspective and focus of feedback literacy reframe the feedback process from a skill and competence development perspective, and it centers more on the supervisees' agency and active role in the feedback process. Furthermore, this study connects the six dimensions of feedback literacy with supervisees' feedback responses or outcomes. The findings will help us to understand better how the six dimensions of supervisees' feedback literacy (i.e., feedback competencies and dispositions) will relate to the supervisees' responses to feedback, especially their feelings and willingness or likelihood of using feedback. The study will fill the gap and provide more empirical evidence for counselor educators, supervisors, and supervisees to understand better supervisees' experiences of dealing with supervisory corrective feedback, and the interplay of different feedback variables. The study will also provide potential implications for counselor educators and supervisors so they can learn how to better support and prepare supervisees' readiness for feedback engagement or develop their competencies or skills to maximize the supervisory feedback benefits and potentials.

Research Questions

Research Question 1a: Does supervisees' feedback literacy (i.e., assessed across six dimensions) relate to their likelihood of using supervisory corrective feedback, while controlling for supervisory working alliance?

Research Question 1b: Do supervisees' levels of anxious attachment moderate the relationship between supervisees' feedback literacy (across all six dimensions) and supervisees' likelihood of using supervisory corrective feedback, controlling for supervisory working alliance?

Research Question 2a: Do supervisees' six dimensions of feedback literacy predict their feelings around receiving corrective feedback, controlling for supervisory working alliance?

Research Question 2b: Do supervisees' levels of anxious attachment moderate the relationship between six dimensions of supervisees' feedback literacy and their feelings around receiving corrective feedback, controlling for supervisory working alliance?

Definitions of Terms

Feedback in general is an interaction where a person responds to another person on another person's behaviors which will impact the likelihood and nature of the recurrence of the behavior (Claiborn & Goodyear, 2005).

Corrective Feedback is communicating either directly or indirectly to their supervisees about aspects of their skills, attitudes, behavior, and appearance that may affect their performance with clients or affect the supervisory relationship (Hoffman et al., 2005, p. 4)

Feedback Literacy is "understanding, capacities, and dispositions needed to make sense of information and use it to enhance work or learning strategies" (Carless & Boud, 2018, p. 1315).

Six Dimensions of Feedback Literacy are conceptualized and developed by Zhan (2022), and it is based on Zhan's work of synthesizing existing findings and theories in feedback literacy and capturing the main components of feedback literacy. Three dimensions reflect the needed literacy specifically capacities in three main feedback stages, including Eliciting, Processing, and Enacting. Capacities in the Eliciting Stage are the "capacities of soliciting information from different sources to improve learning" (Zhan, 2022, p. 1091). Capacities in the Processing Stage are the "capacities of comprehending and judging the received feedback" (Zhan, 2022, p. 1091). Capacities in the Enacting Stage are the "capacities of goal setting, planning and monitoring actions to close a feedback loop" (Zhan, 2022, p. 1091). Another three dimensions are feedback literacy specifically regarding the feedback dispositions, including Appreciation of Feedback, Readiness to Engage, and Commitment to Change. The Appreciation of Feedback is "Acknowledgement of feedback values in learning" (Zhan, 2022, p. 1091). The Readiness to Engage is "Emotional regulation to positively engage with negative and critical feedback" (Zhan, 2022, p. 1091). The Commitment to Change is "Students' enthusiasm to engage with feedback for continuous improvement by investing time or effort" (Zhan, 2022, p. 1091).

Attachment Anxiety is an attachment strategy with high anxiety and low avoidance of attachment, which is defined as "a lack of attachment security, a strong need for closeness, worries about relationships, and fear of being rejected" (Mikulincer et al., 2003, p.79).

Attachment in Supervision is rooted in attachment theory (Bowlby, 1988), and Fitch and colleagues (2010) developed the Attachment-Caregiving Model of Supervision, which introduces the attachment system can be activated in the supervisor-trainee relationship when supervisees face anxiety, stress, and potential threats in clinical work or clinical supervision. In the supervisory relationship, the supervisor may serve as an attachment figure for the supervisee

(Gunn & Pistole, 2012; McKibben & Webber, 2017). When trainees' attachments are activated, supervisees may demonstrate adaptive (i.e., secure) or maladaptive (i.e., insecure, mainly anxious and avoidant) attachment strategies for regulating emotions or seeking help from their supervisor (Menefee et al., 2014).

Supervisory Working Alliance (SWA) is a fundamental part of the supervision process (Watkins, 2014), and according to Bordin (1983), it is a degree to which supervisees and supervisors agree on the goals, tasks, and bonds.

CHAPTER II: LITERATURE REVIEW

In Chapter 1, the author conducts a synthesis of existing important literature on supervisory feedback, with a specific focus on corrective feedback and the challenges supervisees face and the functions and value of it. The author also explores the key variables that play a crucial role in the supervisee's feedback engagement process, such as supervisory relationship, their attachment strategies to supervisors, and their emotional reactions to feedback. Additionally, the author introduces the feedback literacy framework, which serves as a foundational framework for this study. Overall, chapter 1 laid the groundwork for the study by presenting the statement of the problem, introducing the purposes of the study, and articulating the research questions. In the chapter 2, the author will provide a comprehensive review of existing literature and specific framework.

Feedback Importance, Definition, and Types in Supervision

Feedback is widely practiced in the counselor education field and is perceived as the fundamental component of clinical supervision, which both protects clients' welfare and facilitates supervisees' professional and personal growth (Bernard & Goodyear, 2019; Borders et al., 2014). Supervisees value both formal (summative) and informal (ongoing oral feedback) feedback, and rank feedback as the most helpful event in individual supervision, with not getting feedback ranked as one of the least helpful individual supervision events (Fickling et al., 2017). When being asked about supervision experiences, supervisees usually think of the feedback they received and the quality of feedback (Bernard & Goodyear, 2019). Watkins and Scaturo (2013) listed feedback as one of the common factors in educational intervention within the supervision context, and they referred to feedback as the "transtheoretical spine that supports supervisee growth and development" (p. 84). The broad definition of feedback in the counseling field is an

interaction where a person responds to another person on another person's behaviors which will impact the likelihood and nature of the recurrence of the behavior (Claiborn & Goodyear, 2005). In the specific counselor training and supervision context, Green (2011) mentioned that feedback contains the evaluation components of whether a supervisee achieves the standards and competence. For the purpose of this study, the author adopts the feedback definition developed by Hoffman and colleagues (2005) as feedback from a supervisor is "communicating either directly or indirectly to their supervisees about aspects of their skills, attitudes, behavior, and appearance that may affect their performance with clients or affect the supervisory relationship" (p.4).

Feedback comes in various types, each serving different functions and yielding distinct impacts. Formative feedback and summative feedback are two common types of supervisory feedback. Formative feedback refers to the ongoing and regular feedback supervisors provide to supervisees based on the supervisee's clinical performance, and most of the supervisory feedback is formative feedback (Bernard & Goodyear, 2019). Formative feedback is usually the feedback that supervisors offer orally when they work with supervisees in regular supervision sessions. Formative feedback is essential for supervisees' growth and skills development, and it provides ongoing opportunities to help supervisees to reflect on and evaluate their clinical performance, and supervisees have some time before the next supervision to improve their clinical performance based on directions of feedback (Cummings et al., 2015). In most feedback research, researchers examine supervisors and supervisees with formative feedback (e.g., Borders et al., 2017; Burkard et al., 2014; McKibben et al., 2019), as formative feedback happens more frequently and has an important impact on supervisees' professional development. This study will focus on formative feedback context.

Different from formative feedback, summative feedback is also referred to as summative evaluation, in academic settings, it usually is offered twice (usually midterm and final) in a training period (Bernard & Goodyear, 2019). Supervisors provide summative feedback for evaluation purposes, communicate the culmination of evaluation, and usually provide both written and oral information to help supervisees see the supervisors' perceptions of their performance over a period (Bernard & Goodyear, 2019). Researchers critiqued that supervisor training usually has a limited focus on the competence of providing summative feedback (Motley et al., 2014).

In addition to formal and summative feedback, two common classifications of feedback are positive feedback and constructive feedback, both falling under the category of formative feedback. Positive feedback highlights the strengths of counselors' performances or skills and encourages the reinforcement of the related effective behaviors (Toth & Erwin, 1998), and it will help supervisees to build up counseling self-efficacy and confirm that they are doing things on the right track (Daniels & Larson, 2001). Corrective or constructive feedback is used to communicate the gaps between the current performance and desired performance (Claiborn & Goodyear, 2005), and the goal is to help supervisees identify the areas that they need to improve to have better clinical performance. Corrective feedback and constructive feedback will be used interchangeably in this article. Both positive and constructive feedback will help supervisees to have more diverse perspectives to assess their clinical performance. Researchers agree on the need for supervisors to balance positive and corrective feedback (Bernard & Goodyear, 2019; Swank, 2005), recognizing the negative consequences of emphasizing only one extreme side of the feedback. Corrective feedback receives more attention in feedback research than positive feedback (e.g., Borders et al., 2017; Burkard et al., 2014; Rogers et al., 2019) as both supervisees

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and supervisors usually experience difficulties with corrective feedback in supervision (Rogers et al., 2020). It is not uncommon for supervisees to have negative emotions or reactions to corrective feedback (Rogers et al., 2020), and also supervisors experience challenges in delivering corrective feedback, as they have concerns about their approaches, the impact of corrective feedback on supervisory relationships, and potential conflicts (Hoffman et al., 2005). This study will focus on corrective feedback since it creates more challenges for supervisees to deal with and utilization of corrective feedback is also important for supervisees' improvement of clinical performance.

Existing Feedback Research and Gaps

Although feedback plays a crucial role in clinical supervision, research focusing on feedback remains relatively scarce. Prevailing studies predominantly focus on the perspectives of supervisors, emphasizing their experiences in providing feedback and the associated challenges they encountered (Borders et al., 2017; Burkard et al., 2014; Motley et al., 2014), and feedback contents and feedback categories (Avent at al., 2015; Coleman et al., 2009; McKibben et al., 2019; Wahesh et al., 2017). Furthermore, the existing feedback research also delves into conditions that may hinder supervisees' receptivity and perceptions of constructive feedback, such as supervisees' attachment styles (McKibben et al., 2019; Rogers et al., 2019), childhood memories of receiving corrective feedback (Alexander & Hulse-Killacky, 2005), and supervisory relationships (Alexander & Hulse-Killacky, 2005; Heckman-Stone, 2003; Hoffman et al., 2005; McKibben et al., 2019).

The findings of those studies provide essential insights into how supervisees respond to feedback or engage with supervisory feedback. Specifically, supervisees have mixed responses to supervisory feedback, they could change their attitudes or understanding of feedback later

(e.g., Hoffman et al., 2005; Rogers et al., 2020), or could have negative responses to supervisor feedback, such as defensiveness, lack of openness, and being guarded or withdrawing (Borders et al., 2017; Burkard et al., 2014; Hoffman et al., 2005). Additionally, the role of supervisory relationships emerges as pivotal in influencing supervisees' reactions and perceptions of feedback. Trust and a secure supervisory rapport emerge as facilitators, fostering openness and receptivity among supervisees and concurrently diminishing the challenges associated with feedback provision (Borders et al., 2017; Hoffman et al., 2005; McKibben et al., 2019). Conversely, supervisors who perceive weaker supervisory relationships tend to shy away from delivering critical feedback, fearing its potential to disrupt the existing rapport (Burkard et al., 2014). This is particularly evident in the context of delivering feedback concerning professional behaviors, personality-related issues, supervisory relationships, and multicultural awareness, which are often fraught with subjectivity and sensitivity (Burkard et al., 2014; Hoffman et al., 2005). The better the supervisory relationship, the easier for supervisees to accept supervisory feedback and have fewer negative reactions (Hoffman et al., 2005).

In supervision research, the supervisory working alliance has consistently been recognized as one of the most common factors (Ladany et al., 1999), significantly influencing the supervision process and it links or mediates with supervision outcomes (e.g., Hutman & Ellis, 2020; Vandament et al., 2022). Ertl and colleagues (2023) also argued supervisory working alliance could reveal many underlying mechanisms among clinical variables. The supervisory working alliance refers to the consensus on goals, tasks, and the emotional connection shared between the supervisee and supervisor (Bordin, 1983). Goodrich and colleagues (2021) suggested testing the relationship between the supervisory working alliance and supervisees'

willingness and likelihood of using corrective feedback since those constructs shared conceptual ties.

Supervisees' Attachment in Supervision and Supervisory Feedback Process

Existing research indicates that supervisees' reactions to supervisory feedback are influenced by their internal model of attachment (e.g., McKibben et al., 2019). Specifically, McKibben and Webber (2017) discovered that higher levels of attachment anxiety and attachment avoidance towards a supervisor negatively predict supervisees perceived supervisory relationships, explaining 25% of the variance. This implies that supervisees with insecure attachment styles tend to have a negative perception of their supervisory relationships. Moreover, McKibben and colleagues (2019) revealed that supervisees' perceptions of their supervisory relationships, levels of attachment avoidance, and the types of supervisory feedback (counseling performance skills-related feedback and professional behaviors-related feedback), jointly explained 44% of the variance in supervisees' perceived supervisory feedback validity. In simpler terms, it is the combination of the way supervisees perceive their supervisory relationships, their attachment avoidance tendencies, and the nature of the feedback they receive that play a pivotal role in shaping their perception of the validity of supervisory feedback.

Adding to this body of evidence, Rogers and colleagues (2019) emphasized the significance of attachment in the supervision and feedback process. They found that heightened levels of supervisees' attachment anxiety were linked to increased utilization of cognitive distortions, ultimately resulting in greater difficulties with corrective feedback. Furthermore, Rogers et al. (2019) highlighted that supervisees' attachment anxiety levels and the frequency of cognitive distortion utilization respectively were associated with the challenges they faced in receiving corrective feedback. Additionally, Goodrich and colleagues (2021) also found a

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negative association between supervisees' attachment anxiety levels and supervisees' willingness and self-perceived capabilities of accepting and using feedback. In summary, these studies (Goodrich et al., 2021; McKibben & Webber, 2017; McKibben et al., 2019; Rogers et al., 2019) collectively highlight the substantial impact of supervisees' attachment styles, their perceptions of supervisory relationships, and their utilization of cognitive distortions on their responses to supervisory feedback.

The CFASS (Goodrich et al., 2021), focusing on the supervisees' likelihood of using feedback after receiving corrective supervisory feedback, inherently intertwines with attachment dynamics. As the findings showed by Rogers and colleagues (2019), increased levels of attachment anxiety might lead supervisees to cognitive distortions, which can influence their perceptions and approach to feedback. Similarly, in the study of developing the Feelings Experienced in Supervision Scale (FESS; Rogers et al., 2020) examines supervisees' emotional reactions after receiving feedback. Given that attachment anxiety can color supervisees' emotions, potentially making them more sensitive or reactive to feedback, it's likely that their attachment dynamics directly impact their scores on the FESS.

Given the robust evidence presented above, it's evident that supervisees' anxious attachment plays a pivotal role in shaping their perceptions, responses, and interactions during the supervisory feedback process. The substantial influence of attachment anxiety highlights its potential moderating role in the supervisory feedback process. As a lens through which supervisees interpret, evaluate, and act upon feedback, anxious attachment likely moderates the relationship between other variables, such as feedback literacy, and feedback outcomes like the likelihood of using feedback after receiving corrective feedback.

In light of these insights, integrating supervisees' anxious attachment as a moderator in this study's research questions is essential. It enables a more in-depth understanding of the feedback process in supervision, ensuring a detailed view of the complex factors that determine supervisees' feedback experiences.

Corrective Feedback Instrument-Revised

Development of Corrective Feedback Instrument-Revised

Within the limited quantitative explorations of supervisees' experiences with corrective feedback, a measure used by most counseling researchers conducting quantitative studies to examine supervisees' difficulties with corrective feedback is the Corrective Feedback Instrument-Revised (CFI-R; Hulse-Killacky et al., 2006). The original version of the CFI-R is the Corrective Feedback Instrument (CFI; Hulse-Killacky & Page, 1994) developed with the aim of facilitating discussions on providing and receiving corrective feedback among counseling students in counselor training groups. The original CFI (Hulse-Killacky & Page, 1994) consisted of 55 items distributed across seven factors. Hulse-Killacky and colleagues (2006) refined and shortened CFI into CFI-R with 30 items categorized into six factors through exploratory factor analysis to enhance its utility as both a discussion and research tool identifying supervisees' barriers with corrective feedback and facilitating feedback discussions in counselor education.

The six factors comprising the CFI-R—Evaluative, Leader, Feelings, Childhood Memories, Clarifying, and Written—also serve as its subscales. The Leader factor focuses on how group leaders intentionally facilitate the exchange of corrective feedback by setting norms, modeling behaviors, and creating a conducive climate. The Feelings factor and subscale consist of items describing negative emotions associated with giving and receiving corrective feedback, such as concerns about upsetting others or feeling awkward about giving feedback. The

Evaluative factor and subscale include items reflecting a tendency to interpret corrective feedback as criticism of personal competence or failure. Childhood Memories factor and subscale pertain to how childhood memories influence beliefs about giving and receiving corrective feedback, including experiences of pain or hesitance. The Written feedback factor and subscale comprise items expressing a preference for receiving and providing corrective feedback in written form. Finally, the Clarifying factor and subscale include items regarding the reluctance to ask for clarification when receiving corrective feedback.

Application of CFI-R in Supervisory Feedback Research

In the existing literature, the CFI-R has primarily served two roles. Firstly, it has functioned as a discussion and intervention tool, facilitating supervisees' reflection on their past experiences with corrective feedback. It enables supervisees to identify their beliefs and attitudes regarding feedback in a broader context (e.g., Hulse & Robert, 2014; Swank & McCarthy, 2013). Secondly, in the supervision research, the CFI-R has been employed as a variable to assess supervisees' difficulties in dealing with corrective feedback (e.g., Goodrich et al., 2021; Rogers et al., 2020). It has played a pivotal role in examining and revealing the complex relationships between corrective feedback and other supervisory variables (e.g., cognitive distortion, supervisees' negative emotions). Through these investigations, the CFI-R has been used to unveil potential factors and mechanisms that influence supervisees' responses to corrective feedback.

In their study, Rogers and colleagues (2019) found a mediation relationship, with cognitive distortions mediating supervisees' attachment anxiety levels and CFI-R scores (reflecting difficulty with corrective feedback). Similarly, Rogers and colleagues (2020) discovered a positive correlation between supervisees' negative emotional reactions to supervisory feedback and CFI-R scores - suggesting that those who had negative emotional

reactions had difficulty with corrective feedback from their supervisor. Furthermore, Goodrich and colleagues (2021) found a negative association between supervisees' likelihood of using corrective feedback with CFI-R scores. Additionally, in an intervention study conducted by Swank and McCarthy (2015), counseling students' CFI-R scores decreased after they received feedback-related training developed by researchers, identifying that once supervisees were trained on how to receive and engage with feedback, their openness and receptivity to feedback increased. These empirical findings collectively indicate that supervisees' cognitive reactions, emotional responses, tendencies toward subsequent learning behaviors following feedback, and their knowledge and discussions related to feedback all have an impact on their engagement with supervisory feedback.

Limitations of CFI-R

Despite providing valuable insights into supervisees' reception and engagement with feedback, CFI-R and its relevant research still exhibit certain issues and limitations. Firstly, the CFI-R, originally developed for counseling students involved in giving and receiving feedback within a training group context, does not explicitly target the unique experiences of supervisees when receiving feedback from individual supervisors during supervision sessions. Some items of the CFI-R focus on the group dynamic, group leader-related contexts, and preferences for written feedback, rendering them less applicable to supervisees engaging with individual supervisory feedback. The CFI-R places significant emphasis on factors related to supervisees' beliefs and previous experiences with corrective feedback but fails to capture a comprehensive picture of factors such as the supervisees' ability to understand and apply feedback. Furthermore, the CFI-R lacks a process-oriented perspective for examining the feedback process or outlining the

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specific abilities and competencies that supervisees should possess to effectively engage with feedback. Instead, it primarily focuses on static and superficial reactions to feedback.

Gaps in the Previous Literature and New Research Trend

While the extant research provides insightful glimpses into the supervisee's experience of engaging supervisory feedback, it does exhibit certain limitations. When examining supervisees' responses or reactions to critical feedback, researchers often depict supervisees as recipients of feedback information and more focus on their openness or resistance (e.g., Borders et al., 2017; Hoffman et al., 2005) rather than centering supervisees' active role in the feedback process or investigating the intricate dynamics of their feedback engagement process (e.g., how they think, process or evaluate feedback) and subsequent learning behaviors following supervisory feedback. Recently, Rogers and colleagues (2020), and Goodrich and colleagues (2021) pursued a more nuanced comprehension of supervisees' feedback engagement process by developing scales to assess supervisees' emotional responses and the likelihood of using feedback after receiving corrective feedback.

Emotional Reactions of Receiving Corrective Feedback

Supervisees' emotions after receiving corrective feedback are important factors to consider during the feedback exchange process. Supervisees' emotional reactions to corrective feedback are usually complex and diverse (Hulse-Killacky et al., 2006; Klein & Robinson, 2018; Rogers et al., 2020), and negative feelings such as anger, disappointment, and embarrassment are expected (Brown, 2010; Daniels & Larson, 2001; Hulse-Killacky et al., 2006; Rogers et al., 2020). Rogers and colleagues (2020) also found those negative emotions supervisees experience can cause more difficulties for supervisees to receive corrective feedback and also lead to cognition distortions. Goodrich and colleagues (2021) found that the more negative feelings

supervisees experienced after receiving corrective feedback, the less likelihood they would use the supervisory feedback. Supervisees' emotional reactions play a significant role in the feedback engagement process. However, it remains a gap that if supervisees' feedback literacy (their feedback capabilities and feedback dispositions) will impact supervisees' emotional reactions to supervisory feedback.

The Feelings Experienced in Supervision Scale (FESS). Rogers and colleagues (2020) developed and validated the Feelings Experienced in Supervision Scale (FESS), a measure designed to examine supervisees' self-reported emotional responses following supervisory corrective feedback from a process-focused lens. This emphasis on supervisees' emotions parallels earlier efforts, such as the feeling subscale of the Corrective Feedback Instrument-Revised (CFI-R; Hulse-Killacky et al., 2006). However, the researchers of the FESS take this exploration of supervisees' emotions in the feedback process a step further, by delving into complexity of supervisees' negative emotional experiences and the frequency with which these emotions occur. This scale advances our understanding of supervisees' nuanced and comprehensive emotional responses during the supervisory feedback process.

In summary, the development and validation of the FESS by Rogers and colleagues (2020) have significantly enriched our comprehension of supervisees' emotional responses to supervisory corrective feedback. Compared to the feeling subscale within the CFI-R (Hulse-Killacky et al., 2006), the FESS (Rogers et al., 2020) specifically assesses the emotional responses of supervisees following the receipt of corrective feedback during supervision. The FESS also specifies eight common negative emotions regarding feedback recipients, allowing supervisees to identify and select the intensity of their specific emotional responses. The FESS is the first scale to examine the specific negative emotions and their intensity that supervisees

experience upon receiving corrective supervisory feedback, and it represents an initial step towards exploring supervisees' responses to feedback in a more nuanced approach, introducing the potential for future research to delve into the dynamic and process-oriented aspects of supervisees' feedback experiences. The development of FESS and also correlation analysis between FESS and other variables contributes valuable insights into the the connections between supervisees' negative emotions and feedback difficulties, shedding light on the interplay between emotional and cognitive processes, and further support prior research findings (e.g., McKibben et al., 2019; Rogers et al., 2019) related to supervisees' attachment patterns and the feedback process.

The Corrective Feedback Acceptance and Synthesis in Supervision Scale (CFASS)

In line with the idea of examining supervisees' specific responses during the feedback process, Goodrich and colleagues (2021) developed and validated the Corrective Feedback Acceptance and Synthesis in Supervision Scale (CFASS), to examine supervisees' self-reported willingness, capabilities, and likelihood of accepting, and using feedback, and engaging in subsequent learning behaviors, after receiving supervisory corrective feedback–ultimately to assess supervisees' likelihood of using supervisory feedback. The CFASS (Goodrich et al., 2021) is firmly rooted in theories that emphasize the process-oriented nature of learning and supervision. Two key theoretical frameworks that underpin the development of the CFASS are Zimmerman's self-regulated learning theory (Zimmerman, 2008) and the declarative-procedural-reflective model (DPR; Bennett-Levy & Thwaites, 2007).

Zimmerman's theory (2008) posits that learning unfolds through three distinct stages: forethought - involving goal setting, strategic planning, and self-efficacy evaluation; performance - encompassing self-control and self-observation; and self-reflection - entailing the

evaluation of one's performance, causal attribution, and emotional responses to the learning process. The DPR model (Bennett-Levy & Thwaites, 2007), on the other hand, focuses on therapist skill development, consisting of declarative knowledge (theoretical and technical knowledge), procedural skills (counseling skills, implementation of when-then rules and procedures), and the reflective system (self-observation, self-reflection, and problem-solving).

These two theoretical frameworks provide a robust foundation for the development of the CFASS, offering a comprehensive understanding of supervisees' learning and engagement processes within the clinical supervision context. Drawing from this process-oriented perspective, Goodrich and colleagues (2021) identified gaps in existing supervision research, leading to the creation of the first instrument specifically designed to assess supervisees' responses to supervisory feedback and their self-perceived likelihood and ease of "accepting, incorporating, applying, returning to, and seeking out further corrective feedback from a supervisor" (Goodrich et al., 2021, p. 4) - ultimately the likelihood of using feedback. This innovative instrument bridges a critical gap in the field by shedding light on supervisees' experiences and behaviors in response to corrective feedback in supervision.

In their correlation analysis aimed at assessing divergent validity of the CFASS, Goodrich and colleagues (2021) unveiled compelling findings that contribute significantly to our understanding of supervisees' responses to supervisory corrective feedback. Goodrich and colleagues (2021) found that there were negative associations between the CFASS and supervisees' difficulties with corrective feedback (measured by CFI-R; Hulse-Killacky et al., 2006), supervisees' attachment anxiety levels, supervisees' utilization of cognitive distortion, and supervisees' negative feelings that followed supervisory feedback. This suggests that when supervisees have negative feelings in response to supervisory feedback, have cognitive

distortions related to feedback, or increased anxiety levels related to attachment, then the supervisee's likelihood of using the feedback decreased. Those findings deepened our insight into supervisees' engagement process of supervisory feedback, by illuminating the intricate interplay between supervisees' likelihood of using feedback and engaging in learning-based behaviors, difficulties with corrective feedback, emotional responses to feedback, cognitive responses to feedback and also anxious attachment style. Additionally, the CFASS offers desired learning behaviors that supervisors aim to help supervisees to develop, and also those behaviors could be perceived as evidence that contribute to desirable professional dispositions (Goodrich et al., 2021), to capture the impact of supervisory feedback to supervisees' growth. Overall, compared to the CFI-R (Hulse-Killacky et al., 2006), which is used in most previous quantitative studies about feedback in supervision, with a focus more on the supervisees' attitudes and beliefs about corrective feedback, the CFASS indicates more supervisees' behavioral responses tendency after receiving corrective feedback. Therefore, the CFASS is better suited than the CFI-R for indicating the behavioral outcomes resulting from supervisory feedback. While both Rogers and colleagues (2020) , and Goodrich and colleagues (2021) initiated a direct exploration of supervisees' responses after receiving supervisory corrective feedback, both studies exhibit limitations that warrant considerations. Specifically, they both lacked examining the influence of supervisory relationships or working alliance, which is one of the most important common factors in the supervision process (Hutman & Ellis, 2020; Ladany et al., 1999; Vandament et al., 2022) in the supervisees' response and feedback engagement process. Additionally, the CFASS mainly focuses on supervisees' likelihood of using supervisory feedback; however, in their study, Goodrich et al. (2021) did not examine it in relation to supervisees' specific skills related to feedback literacy or the process of their engagement with feedback in general, such as the

abilities and competencies to understanding feedback contents and extract feedback into actionable steps to improve clinical performance, setting appropriate goals and plans to implement feedback. Understanding how the CFASS is related to supervisees' understanding and processing of feedback, as well as their expectations or attitudes, commitment to feedback or readiness to feedback, would be important to helping supervisors know the disconnect between receiving feedback in supervision and utilization of feedback by supervisees.

Needs of Preparing Supervisees for Feedback Process

Dealing with supervisory feedback is perceived as one of the core competencies of supervisees (Bernard & Goodyear, 2019). Some feedback researchers initiated explorations of what and how counselor educators should train supervisees or counselors-in-training to help them to gain feedback related skills or competencies to make full use of feedback (e.g., Hulse & Robert, 2014; Swank & McCarthy, 2015). Swank and McCarthy (2015) found that 40% of their master's counseling participants did not have experience of feedback exchange in professional settings, and also from their teaching experience, they recognized there was a great need to teach counselors-in-training how to give and receive feedback. To address this gap, Swank and McCarthy (2013) conceptualized The Counselor Feedback Training Model (CFTM). The CFTM was grounded in Kolb's (1984) Experiential Learning Model, Stoltenberg's (1981) Integrative Development Model (IDM) and behavioral theories. The major components of the training model are examining supervisees' beliefs and values about feedback by using Corrective Feedback Instrument-Revised (CFI-R; Hulse-Killacky, et al., 2006), which helps the counselor-in-training acknowledge the importance and purpose of feedback and how to give and receive feedback. Swank and McCarthy (2015) found that, after receiving the training of CFTM, there were significant differences in students' self-efficacy of giving feedback and also in students'

beliefs and values of feedback. However, while the outcomes of the training increased self-efficacy and understanding of feedback, a lack of clear explanations and rationale of feedback contents in the training exists. Swank and McCarthy (2013) did identify the CFI-R as a framework to develop their training. Additionally, while Swank and McCarthy (2013) explored supervisee's efficacy and knowledge around feedback, they did not examine if the feedback training or the changes in efficacy and feedback beliefs impacted supervisees' utilization of feedback. This may be due to the fact that very little has been done to explore the overall feedback engagement process, including aspects such as feedback literacy, among supervisees - leaving a lack of clarity on where the breakdown of feedback to the actual use of feedback is occurring.

Similarly, Hulse and Robert (2014) argued there was a need to prepare supervisees with feedback exchange process and they also developed feedback activities that help supervisees to reflect on their attitudes and beliefs around feedback and identify potential contents of giving and receiving feedback, based on the Corrective Feedback Instrument-Revised (CFI-R; Hulse-Killacky et al., 2006). The activities provided by Hulse and Robert (2014) were based on CFI-R cover 6 factors (Feelings, Evaluative, Leader, Clarifying, Childhood Memories, and Written) that they identified as factors that may impact supervisees' ability to receive corrective feedback. Hulse and Robert (2014) reported that the use of CFI-R in supervision in their institution decreased supervisees' negative reactions to feedback and increased possibilities of supervisees to engage with supervisory feedback. While Hulse and Robert found the use of activities based in CFI-R were effective in supervisees' initial processing of supervisory feedback, there was no empirical evidence supporting the specific activities developed, nor the use of CFI-R to impact supervisees' utilization of supervisory feedback. Additionally, the CFI-R focuses more on

supervisees' values and beliefs of feedback, which does not capture the comprehensive capabilities and dispositions that supervisees should have to make most use of feedback. What remains unclear is the impact that feedback literacy, or the process of understanding and engaging with feedback, and emotional responses to feedback, has in relation to the utilization of feedback. Thus far, feedback literacy is a concept that has not been talked about or explored in counseling or clinical supervision.

Student Feedback Literacy in Higher Education

In higher education, researchers constructed and have been continuously developing a concept called "feedback literacy"(Sutton, 2012; improved by Carless & Boud, 2018), to assist educators and students in adopting new perspectives of feedback that center students as active agents in the feedback exchange process, and reframe the process from a skills development lens; thus, fostering students' proactive engagement with and full utilization of feedback (Careless & Boud, 2018). The original concept of feedback literacy was developed by Sutton (2012) and expanded by Carless and Boud (2018). Feedback literacy is "understanding, capacities, and dispositions needed to make sense of information and use it to enhance work or learning strategies" (p. 1315). The development of the feedback literacy concept was to address issues of feedback practice in higher education, as feedback is typically not used effectively in education, and students did not have a satisfying experience in the feedback process (Nieminen & Carless, 2022).

The concept of feedback literacy and related research promoted the new paradigm of feedback practice that challenges the traditional feedback transmission approach. The traditional feedback typically depicts students as recipients of feedback information from teachers, and emphasizes teachers' role in feedback process (Carless, 2022; Winstone & Carless, 2019), while

the concept of feedback literacy, instead, focuses on students' roles and skill sets in the feedback practice and how students could take responsibility in the process (Carless & Boud, 2018). This concept of feedback literacy has received attention within the higher education field in recent years and has the potential to help students (and teachers) optimize their benefits of feedback opportunities (Carless & Boud, 2018; Nieminen & Carless, 2022).

While researchers in the counseling field have made initial explorations into feedback training and related activities (e.g., Hulse & Robert, 2014; Swank & McCarthy, 2015) to enhance supervisees' preparedness for supervisory feedback, the feedback foundations of these training and activities remain fragmented, addressing only specific facets of the supervisees' feedback engagement process. In contrast, feedback literacy in the higher education field offers a holistic framework that captures the more complicated understanding of the feedback process and provides what and how to adequately prepare students for the feedback process.

Zhan (2022), in a comprehensive synthesis of feedback literacy research, highlighted the dual foci of feedback literacy: (1) competencies across three key feedback stages (eliciting, processing, and enacting) and (2) the essential dispositions (appreciation of feedback, readiness to engage, and commitment to change). Zhan's goal was to synthesize a framework of feedback literacy that she could use to develop a scale to measure the components of feedback literacy. This framework (and measure) fills in gaps in supervisory feedback scholarship that were noted above, addressing the absence of the process of supervisee's feedback engagement. More specifically, Zhan's synthesis of the competencies and dispositions in feedback literacy add a stage-based perspective that includes the competencies needed for each stage, and a comprehensive understanding of the dispositions essential for effective feedback engagement by a student (i.e., supervisee). While there are nuances between how verbal and written feedback are

provided in supervision, and feedback is provided in a classroom, the student feedback literacy framework can be applied to counselor training and clinical supervision. The process by which supervisees handle supervisory feedback (e.g., cognitive processing and emotional reaction) can mirror that of students interacting with teacher feedback. Furthermore, at its core, supervision is a learning journey, leveraging feedback to empower supervisees in evaluating and honing their clinical skills (Bernard & Goodyear, 2019).

Since approximately 2010, scholars within the higher education field have turned their attention toward the feedback process with a distinct focus on a learner-centric perspective, which accentuates the active role students play in the feedback exchange (Zhan, 2020). Notably, Sutton (2012) introduced the concept of "feedback literacy," subsequently laying the groundwork for a feedback literacy research agenda. By examining and synthesizing scholarly discourse and research findings, Zhan (2022) identified two common themes among various feedback literacy scholars — an emphasis on students' capabilities and dispositions for meaningful engagement with feedback. This recognition underscored the importance of delineating competencies pertinent to diverse stages within the feedback process to cultivate an encompassing literacy (Zhan, 2020).

In their synthesis, Zhan (2022) identified a comprehensive six-dimensional framework (including three feedback stages and three feedback dispositions, see it in the Table 1. Student Feedback Literacy Framework thus furnishing the theoretical underpinning for the subsequent development of the feedback literacy scale. These six dimensions include three key feedback stages and three essential feedback dispositions. The six dimensions identified by Zhan align with the six subscales of the feedback literacy scale: (1) eliciting, (2) processing, (3) enacting, (4) appreciation of feedback, (5) readiness to engage, and (6) commitment to change. In the

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forthcoming sections, each of these dimensions, along with their components, will be introduced

- illuminating their interconnectedness with supervisees' feedback process in counselor

education.

Table 1. Student Feedback Literacy Framework

6 Dimensions	Feedback Stage/Disposition
Eliciting	Feedback Stage
Processing	Feedback Stage
Enacting	Feedback Stage
Appreciation of feedback	Feedback Disposition
Readiness to engage	Feedback Disposition
Commitment to change	Feedback Disposition

Eliciting

Eliciting is one of the feedback stages. The competencies of eliciting stage focus on

students' capabilities to actively elicit feedback from teachers to address issues or meet their

learning needs (Malecka et al., 2020), and invite others to evaluate their work (Molloy et al.,

2020). This includes students seeking examples or talking with others to understand the

assessment criteria, so they can evaluate the quality of their own work (Noble et al., 2020).

In the supervision context, supervisees also experience a similar eliciting stage. Supervisors will

support supervisees for skills development and improve their clinical performance, and also

facilitate their professional development. Eliciting stage may look a bit different based on

supervisees' developmental stages. Based on the Integrative Developmental Model (IDM;

Stoltenberg & McNeill, 2011), supervisees who are in the early stage (Level 1) usually have high

motivation to learn and acquire skills, are highly dependent on supervisors, and need more

structure and specific feedback from their supervisors. Based on these developmental characteristics, supervisees may be more willing to ask supervisors' help or perspectives and obtain their feedback to improve their clinical performance. Supervisees in this stage also less confrontational and rely more on supervisors' suggestions and guidance (Stoltenberg et al., 2014), which may also increase their likelihood of using supervisory feedback. Furthermore, based on the limited clinical experience and lack of procedure knowledge (Stoltenberg et al., 2014), supervisees may not be clear of the standards or evaluation criteria of their clinical work, or may be unsure of what equates "good" work. When supervisees progress into more advanced development stages (e.g., Level 2), supervisees become less dependent and have increased self-efficacy, so they need less structure, resulting in less of a need for supervision to be directive (Stoltenberg et al., 2014). However, supervisees will still have needs for supervision, but the motivation may fluctuate based on their individual situations. The focus of supervisees' needs may also change as they move to more advanced developmental stages (e.g., change from basic counseling skills development to more advanced and complicated cognitive skills).

Processing

In the second stage of the feedback process, the processing stage, students receive feedback information and process it cognitively. To maximize the benefits of this stage, students should possess competencies that enable them to comprehend the feedback they have received and assess the quality of both the feedback and their own work to make informed decisions about accepting or rejecting the feedback. Additionally, students should be capable of asking clarifying questions or seeking further details, to transform the feedback into actionable information, thus enhancing the practical relevance of the feedback (Molloy et al., 2020). During the processing

stage, it can be helpful if students can recognize different standing points of feedback (Zhan, 2022).

When connecting the processing stage, and competencies within this stage, to the context of supervision, supervisees need to first grasp the feedback and its underlying rationale. For example, based on the discrimination model (Bernard, 1979, 1997), when supervisors serve in different roles (e.g., teacher, counselor), the purposes and approaches of their interventions will be different. If supervisees could understand the feedback content and recognize the goals or rationale of the feedback (e.g., improve skills; enhance self-reflection), this would not only align their perspective with that of supervisors, fostering a shared understanding and purpose in supervision, but also equip them with the cognitive framework to effectively apply those thinking processes in future similar situations. Additionally, sometimes supervisors' feedback may also combine many levels of information (e.g., basic technical information of skills, when and how to use the skills). Based on the declarative-procedural-reflective model (DPR model; Bennett-Levy,2006), a commonly used model in supervision, supervisees should have declarative knowledge (technical and fundamental knowledge), procedural knowledge (when-then knowledge, know how and when to apply the skill) and reflective knowledge, to fully master or learn a skill. Thus, sometimes supervisors may provide feedback containing different types of knowledge. To make most of the feedback, supervisees need to know how to extract useful actionable information from the feedback, and acknowledge the different types of knowledge to enact feedback.

Supervisee development stage may influence their competencies in the processing stage. For example, supervisees in a beginning development stage may need more explanations or clarifications to make sense of feedback, and more help to figure out the actionable information

from feedback, since they have limited clinical experiences and also need to retrieve the declarative knowledge. Moreover, how supervisors prepare supervisees with dealing with feedback, or feedback training supervisees received, may also impact their competencies in processing stage, with more preparation in engaging with feedback needed in earlier developmental stages. This could include how the supervisors prepare supervisees to record or check their understanding of feedback, encourage them to ask clarifying questions and be clear with actionable steps.

There's a noticeable gap in the existing literature on these processing-related competencies and supervisees' experiences during this feedback stage. Specifically, to date, no researchers have explored the ability for supervisees to understand, or seek additional clarification, in regard to the feedback they have received from a supervisor; and in turn, how this processing lends itself to the utilization (or lack thereof) of supervisory feedback.

Enacting

The last feedback stage, the enacting stage, involves students taking action based on feedback to enhance their performance. Within this stage, several competencies come into play, including the restoration and analysis of feedback information for future action (Molloy et al., 2020), goal-setting and self-regulation of their learning, as well as the evaluation and monitoring of their performance (Winstone et al., 2017). Additionally, students should possess the ability to make plans based on their goals to effectively implement feedback (Molloy et al., 2020; Yu & Liu, 2021).

In the supervision context, supervisees' development stages may impact their competencies in the enacting stage. Based on the Integrative Developmental Model (IDM; Stoltenberg & McNeill, 2011), Level 1 supervisees usually need more structures and concrete

guidance of supervisors, and also work on gaining more fundamental skills and knowledge. Additionally, they are more self-conscious and more anxious of their clinical performance. Therefore, these developmental characteristics may influence their competencies in the enacting stage (e.g., having less working memory to monitor their progress or act on their plans). Supervisees in more advanced developmental stages may be more able to set goals and think about when and how to apply feedback into clinical work, and also better with monitoring their performance of enacting feedback.

While the enacting stage of feedback literacy has not been fully explored in clinical supervision, the utilization and application of feedback has been explored. Goodyear and colleagues (2021) focused on supervisees' application and utilization of feedback, albeit in a different way than what is identified within the enacting stage of feedback literacy. Specifically, the CFASS items assess supervisees' likelihood and easiness of incorporating and applying feedback, and their willingness to seek further supervision. In the CFASS, Goodrich and colleagues (2021) concentrate on future behavioral tendency, particularly the likelihood and willingness that supervisees will use the supervisory feedback. However, they did not examine the competencies or specific actions required during the feedback enactment stage that are essential for enacting the feedback. In the enacting stage, it is more about goal setting and making appropriate plans for applying feedback within clinical work, as well as to continuously monitor own performance of using feedback, and less about the likelihood that one may or may not use the feedback (which is what is measured by the CFASS). However, the competencies in the enacting stage could impact one's likelihood of utilizing and applying the feedback in the future. While many researchers in counseling have explored the supervisory relationship, emotional responses related to supervisor feedback, and the likelihood of using feedback (e.g.,

Goodrich et al., 2021; Rogers et al., 2019; Rogers et al., 2020), all often overlook the nuanced processes and learning behaviors in the enacting stage, even though this stage is essential for effectively completing the feedback loop (Zhan, 2022).

Given these gaps in the clinical supervision research, the value of feedback literacy, as conceptualized in higher education, becomes evident. By adopting its framework, especially pertaining to the three key stages, we can gain a more profound understanding of supervisees' specific learning behaviors that will facilitate the utilization of feedback and also the learning process. In addition to competencies aligned with specific stages, the feedback literacy framework underscores the significance of dispositions of feedback. These include the appreciation of feedback, the readiness to engage, and the commitment to change.

Appreciation of Feedback

Appreciation of feedback disposition specifically focuses on students possessing the capacity to value feedback, particularly comprehending and acknowledging its purpose, functions, and roles in enhancing their learning (Carless & Boud, 2018). To delve deeper, feedback-literate students recognize that feedback offers diverse perspectives that aid in fostering self-reflection (Yu & Liu, 2021). Furthermore, with this disposition, supervisees grasp the utility of feedback in honing their judgment of both weaknesses and strengths within their work or performance, while also acquiring knowledge of effective learning strategies (Molloy et al., 2020).

Within the context of supervision, researchers have also emphasized the need to address supervisees' misconceptions about the intentions of corrective feedback (e.g., Hulse-Killacky et al., 2006; Hulse & Robert, 2014). For instance, the Corrective Feedback Instrument-Revised (CFI-R; Hulse-Killacky et al., 2006) includes an evaluative subscale comprising items that

encapsulate common misconceptions about corrective feedback, which focus on supervisees'

perceptions of feedback as criticism, seen as failure, or related negative feelings about feedback.

A lack of proper understanding of corrective feedback, coupled with misconceptions or negative

perceptions about it, can create difficulties for supervisees in dealing with corrective feedback （

Hulse-Killacky et al., 2006). Furthermore, Swank and McCarthy (2015) discovered that a notable

40% of supervisees lacked exposure to receiving feedback in a professional setting before

entering the counseling programs, which indicates that supervisees lack experience or formal

education in dealing with corrective feedback before entering counseling programs. Lack of

education or training on feedback may lead to supervisees' confusions about corrective feedback

roles or functions in their learning process. Although those researchers recognize that negative

attitudes and misconceptions toward corrective feedback, or a lack of discussion and training of

feedback can hinder supervisees' reception of feedback (e.g., Hulse-Killacky et al., 2006; Swank

& McCarthy, 2015), there is a notable absence in the current empirical research within the field

of counseling that examines the appreciation of feedback and its specific competencies. The

appreciation of feedback disposition within the Feedback Literacy Framework addresses this

gap, and needs to be explored among supervisees regarding feedback in clinical supervision.

Readiness to Engage

Readiness to engage is another essential feedback disposition identified by Zhan (2022)

when she synthesized the literature on feedback literacy. This disposition refers to students being

emotionally ready to engage with feedback information (Zhan, 2022). It is common that

feedback may provoke negative affect (Rogers et al., 2021), so feedback-literate students are

competent at managing emotional equilibrium when receiving corrective feedback (Carless &

Boud, 2018), can regulate their emotions so they can better deal with feedback (Yu & Liu, 2021),

and demonstrate openness to feedback instead defensiveness towards feedback (Molloy et al., 2020).

In the clinical supervision context, the supervisee's negative emotional reactions also receive attention from researchers (e.g., Daniel & Larson et al., 2001; Hoffman et al., 2005; Rogers et al., 2020). In response to the literature on supervisee negative emotional responses to supervisory feedback, Rogers and colleagues (2020) developed the Feelings Experienced in Supervision Scale (FESS) to examine supervisees' negative emotions and related intensities of emotions. Similarly, In the CFI-R, Hulse and colleagues (2006) also created the feelings subscale to capture supervisees' negative emotions as one of the barriers of receiving feedback. In clinical supervision literature, negative feelings following corrective feedback are associated with cognitive distortion (Rogers et al., 2020), and negative feelings are negatively correlated with supervisees' tendency to use supervisory feedback (Goodrich et al., 2021). Therefore, emotional responses has been explored in clinical supervision research, albeit not within the context of the rest of the feedback literacy process. In line with both the feedback literacy framework - and specifically the disposition of readiness to engage (Zhan, 2022) - and existing research in clinical supervision related to supervisee emotional responses to corrective feedback, to make use of corrective feedback, supervisees should have the capability to regulate their emotions during the feedback process.

Commitment to Change

The last essential feedback literacy disposition is the commitment to change. The commitment to change entails students dedicating their time and energy to make changes and enhance their learning based on received feedback (Zhan, 2022). To expound further, students demonstrate commitment through activities such as revising their work, adapting their learning

strategies, overcoming challenges encountered during the process, and dedicating additional time to searching other resources to facilitate the improvement process (Zhan, 2022). Furthermore, students exhibit a commitment to leveraging feedback for the sake of continual enhancement in their subsequent performance (Molloy et al., 2020).

Nonetheless, existing supervision research tends to downplay the importance of delineating more tangible behaviors associated with supervisees' commitment and willingness to integrate feedback. In this regard, the feedback literacy framework furnishes a comprehensive array of specific behaviors that delve into supervisees' hesitations or perseverance as they incorporate feedback into their learning journey. For example, supervisees may need some time to digest the feedback information and think about how to use the feedback or make decisions of using or not using feedback. If supervisees don't have a strong willingness or commitment to use feedback, supervisees may likely end up not using the feedback.

Given the potential application of Zhan's (2022) six dimensions of feedback literacy to clinical supervision, the Student Feedback Literacy Framework will be used as the theoretical framework for this study. This framework captures the complexity of the feedback process and competencies students should have in each feedback stage and also related feedback dispositions, to make the most use of feedback. As discussed above, there are many connections between the student feedback literacy framework and the supervisory feedback process.

CHAPTER III: METHODOLOGY

This section delves into the research methodology, providing a comprehensive overview of how the study variables will be examined. This chapter includes an explanation of participants, instrumentations, data collection procedures, and the statistical analysis that will be employed. Furthermore, the pilot study and its results will also be discussed.

Research Questions and Hypotheses

The purpose of this study was to examine how supervisees' six dimensions of feedback literacy influenced the likelihood of using feedback after receiving corrective supervisory feedback and their feelings about receiving corrective feedback. This study aimed to further understand how supervisees' levels of attachment anxiety with their supervisors moderated the relationship between the six dimensions of supervisee feedback literacy and supervisees' likelihood of using feedback after receiving corrective supervisory feedback; and also, if the supervisees' levels of attachment anxiety moderated the six dimensions of supervisee feedback literacy and their feelings about receiving corrective feedback. These relationships were examined while controlling for supervisees perceived supervisory working alliance on their feedback utilization. The following research questions and hypotheses were addressed in the study:

Research Question 1a: Does supervisees' feedback literacy (i.e., assessed across six dimensions) relate to their likelihood of using supervisory corrective feedback, while controlling for supervisory working alliance?

Hypothesis 1a: Controlling for the supervisory working alliance, all six dimensions of supervisees' feedback literacy will be positively and significantly related to supervisees' likelihood of using supervisory corrective feedback.

Research Question 1b: Do supervisees' levels of attachment anxiety moderate the relationship between supervisees' feedback literacy (across all six dimensions) and supervisees' likelihood of using supervisory corrective feedback, controlling for supervisory working alliance?

Hypothesis 1b: Supervisees' levels of attachment anxiety will moderate the relationship between supervisees' feedback literacy (across all six dimensions) and supervisees' likelihood of using supervisory corrective feedback. Specifically, at higher levels of anxious attachment, the positive correlation between feedback literacy and the likelihood of using supervisory corrective feedback will become weaker.

Research Question 2a: Do supervisees' six dimensions of feedback literacy influence their feelings around receiving corrective feedback, controlling for supervisory working alliance?

Hypothesis 2a: The six dimensions of supervisees' feedback literacy will be significantly negatively related to their feelings around receiving corrective supervisory feedback. Controlling for the supervisory working alliance, higher feedback literacy will be associated with decreased supervisees' negative feelings.

Research Question 2b: Do supervisees' levels of attachment anxiety moderate the relationship between six dimensions of supervisees' feedback literacy and their feelings around receiving corrective feedback, controlling for supervisory working alliance?

Hypothesis 2b: Supervisees' levels of anxious attachment anxiety will moderate the relationship between the six dimensions of supervisees' feedback literacy and their feelings about receiving feedback. Specifically, the relationship will be stronger at higher levels of supervisees' attachment anxiety.

Participants

The following criteria need to be met for an individual to be eligible for this study: (a) Currently or recently (within last three months) enrolled in a CACREP-accredited counseling master program (b) Currently or recently (within last three months) enrolled in the clinical practicum or internship where individual supervision was received from either site or university-based supervisor (c) Working with an individual supervisor who provides corrective feedback. Based on a priori power calculation conducted in G*Power with a maximum of 13 tested predictor variables, a total sample of 139 participants will be sufficient to achieve a power of. 80 (Heppner et al., 2015) for linear multiple regression with a moderate effect size $f^2=0.15$ (Li, 2022) and alpha=0.05. Therefore, a minimum of 139 participants was needed to answer the current research questions; however, a larger sample size was sought.

Instrumentation

Participants completed a demographic information questionnaire and five instruments in an online survey (see Appendix A, B, D, E, F, G). The five instruments include a modified version of the *Scale of Student Feedback Literacy* (*SSFL*; Zhan, 2022), the *Feelings Experienced in Supervision Scale* (*FESS*; Rogers et al., 2020), the *Corrective Feedback Acceptance and Synthesis in Supervision* (*CFASS*; Goodrich et al., 2021), the *Supervisee Attachment Strategies Scale -Rejection Concern/Security Subscale* (*SASS-Rejection*; Menefee et al., 2014), and the *Supervisory Working Alliance Inventory–trainee version* (*SWAI-T*; Efstation, et al., 1990).

Demographic Questionnaire

A demographic questionnaire (see Appendix A) was designed to gather participants' age, race and ethnicity, gender, sexual and/or affectional identity, immigrant status, and training specialty. The demographic questionnaire included screening questions to ensure participants

meet the inclusion criteria, participants were asked if they were currently or recently (within three months) enrolled in a CACREP-accredited counseling master program; if they were currently or recently enrolled (within three months) in the clinical practicum or internship, if they received individual supervision from their current or present practicum or internship, and if they received corrective feedback from one of their supervisors in practicum or internship.

Scale of Student Feedback Literacy

The Scale of Student Feedback Literacy (SSFL; Zhan, 2022) was developed and validated by Zhan (2022) to assess students' feedback literacy and address the gap in higher education literature. The SSFL serves the purpose of assessing students' abilities in three critical feedback stages and three dispositions for making the most of feedback (Zhan, 2022). Specifically, the SSFL assesses students' feedback literacy across six dimensions, with three dimensions focusing on students' capacity in the three key feedback stages: eliciting, processing, and enacting feedback (Zhan, 2022) and three dimensions related to students' dispositions, encompassing appreciation, readiness to engage, and commitment to change in response to feedback (Zhan, 2022). The specific items and dimensions were designed based on the theoretical framework of student feedback literacy synthesized by Zhan (2022).

The student feedback literacy scale comprises 24 items, with each dimension consisting of four items. It employs a 6-point Likert scale (1 = *strongly disagree*, 6 = *strongly agree*) to capture students' responses across these six distinct dimensions. The Cronbach's alpha coefficient for the entire SSFL scale was 0.967, while each of the six dimensions yielded values ranging from 0.896 to 0.927 (Zhan, 2022). These results indicate a high degree of reliability and internal consistency. The results of the confirmatory factor analysis (CFA) strongly supported the hypothesized six-dimensional structure of the SSFL. Furthermore, significant correlations

were found between the SSFL and students' intrinsic and extrinsic learning motivation, affirming the between-network construct validity of the SSFL.

The original SSFL (Zhan, 2022; found in Appendix C) was rigorously tested and validated among a diverse sample of 555 college students in mainland China, encompassing various academic majors and different academic levels or grades. It's essential to note that the original version of the scale is in Mandarin, reflecting its cultural context. Additionally, for international use and accessibility, an English version of the SSFL was also provided by Zhan (2022) in the research paper. The SSFL had not been previously utilized in counseling, counselor education, or clinical supervision fields. However, the scale was adapted for application in diverse populations and contexts, as evidenced by its use among Chinese high school students from various ethnic backgrounds in China (Chen et al., 2023). In Chen and colleagues' study (2023), the adjusted SSFL demonstrated robust internal consistency, with Cronbach's alpha coefficients ranging from 0.87 to 0.92 across its six dimensions. Furthermore, its validity was substantiated across different gender and grade levels through factor analysis (Chen et al., 2023).

For the purposes of the current study, the original SSFL was slightly modified to fit the measure within the individual supervision context. Specifically, words in the SSFL like "teachers", "peers", "school mentors" and "others" were changed to "supervisor". Based ib rge findings of the pilot study, the author also made minor modifications to make the wording more closely connected with participants' supervision context. The modified version of the SSFL was used in this study in Appendix B.

Feelings Experienced in Supervision Scale (FESS)

The Feelings Experienced in Supervision Scale (FESS; Appendix F) was developed and validated by Rogers and colleagues (2020). The FESS serves as a tool for assessing supervisees'

emotional responses following the receipt of constructive feedback from their supervisors. The FESS consists of 9 items rated on a 7-point Likert scale, with response options ranging from 1 (*I never feel this way*) to 7 (*I always feel this way*). The FESS focuses on capturing supervisees' experiences of negative emotions in relation to critical feedback from a clinical supervisor, particularly those stemming from three primary emotions: sadness, anger, and fear (Rogers et al., 2020). Sample items from the FESS include "Angry", "Anxious", "Embarrassed", and "Discouraged". Notably, one item, "Frustrated" is repeated twice in the measure to ensure reliability. Higher scores indicate a great extent of negative emotional responses followed by receiving supervisory corrective feedback.

The FESS exhibited strong internal consistency with a Cronbach' s alpha coefficient of 0.88 in the original study (Rogers et al., 2020). Rogers and colleagues (2020) also conducted correlation analyses in the original study, and they found significant associations between the FESS and other related constructs, including supervisees' attachment anxiety (Adult Attachment Scale–Revised; Collins, 1996), use of cognitive distortions (Cognitive Distortions Scale; Covin et al., 2011), and difficulty with corrective feedback (Corrective Feedback Instrument–Revised; Hulse-Killacky et al., 2006). These correlations support the convergent validity of the FESS, highlighting that supervisees' negative emotional responses are linked to cognitive distortions, higher attachment anxiety levels, and increased difficulty with corrective feedback. A Principal Component Analysis (PCA) was conducted to explore the factor structure of the FESS, and the result revealed the one-factor structure, which means the FESS measures a single construct related to supervises' negative emotional reactions to corrective feedback.

The FESS (Rogers et al., 2020) was initially validated with a sample of 73 master's-level counseling student supervisees enrolled in practicum or internship classes across four U.S.

universities accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). These participants represented various counseling tracks, coming from different regions of the U.S. The FESS was applied by Goodrich and colleagues (2021) in their study, and the FESS displayed good internal consistency with a Cronbach's alpha of .88 (Goodrich et al., 2021).

Supervisee Attachment Strategies Scale - Rejection Concern/Security Subscale (SASS-Rejection)

The Supervisee Attachment Strategies Scale (SASS) was developed by Menefee and colleagues (2014) to assess the attachment orientations of counseling trainees toward their supervisors. The SASS comprises 22 items with two distinct subscales: a 13-item Avoidance/Engagement scale and a 9-item Rejection Concern/Security scale. For the purpose of this study, only the Rejection Concern/Security subscale is used. The Rejection Concern/Security subscale (Menefee et al., 2014; Appendix E) adopts a 6-point Likert scale, where participants rate their level of agreement with each statement (1=*strongly disagree*, 6=*strongly agree*). This subscale aligns with the anxious/security dimension of the adult attachment and the higher score of the subscale indicates the supervisee's increased rejection concerns by the supervisor. To avoid confusion, the author referred to the "SASS-Rejection Subscale" in the Chapter IV and Chapter V as "SASS-Anxiety".

In the original study of the development of SASS, Menefee and colleagues (2014) conducted an exploratory factor analysis to affirm the SASS's two-factor structure, reflecting dimensions of Avoidance/Engagement and Rejection Concern/Security. Collectively, these two factors explained 55.85% of the total variance, with the Avoidance/Engagement dimension accounting for 37.27% and the Rejection Concern/Security dimension capturing the residual

18.58%. For the reliability of the SASS, Cronbach's alpha values were .94 for the Avoidance subscale and .88 for the Rejection Concern subscale.

The SASS-Rejection Concern/Security subscale has previously been used in other studies to examine the supervisees' attachment rejection concerns (e.g., Son et al., 2022). For example, Son and colleagues (2022) used the original rejection subscale and the South Korean version of the rejection subscale (Shin et al., 2016). In the study, Cronbach's alphas were .82 for U.S. Americans and .81 for SK. Son and colleagues (2022) used the rejection subscale to test if the supervisees' rejection concerns attachment characteristics, along with other variables, predicted both types of supervisee nondisclosure in South Korea and the United States.

Supervisory Working Alliance Inventory–Trainee version (SWAI-T)

Supervisory Working Alliance Inventory–Trainee version (SWAI-T; Efstation et al., 1990; Appendix D), one of the most widely used measures to assess supervisory relationships within counselor education field (Sabella et al., 2020), was originally developed and validated by Efstation and colleagues (1990), to assess the supervisees' perception of supervisory working alliance, based on the concept developed by Bordin (1983). The SWAI-T is a 19-item 7-point Likert scale (1=*almost never*, 7=*almost always*). The measure includes two subscales–rapport (12 items, e.g., "My supervisor makes the effort to understand me") and client focus (7 items, e.g., "In supervision, my supervisor places a high priority on our understanding the client's perspective."). The total score for the scale was determined by adding up individual item responses and then dividing by 19 to create an overall total mean score. Higher scores reflect a stronger supervisory working alliance. In this study, the total SWAI-T scale will be used to assess supervisees' perceived supervisory working alliance.

The Cronbach's alpha coefficients were found as .90 for rapport and .77 for client focus in the original study (Efstation, et al., 1990). In the original study, Efstation and colleagues (1990) found the result of the EFA supports the two-factor structure (Rapport and Client Focus) of the SWAI-T. Additionally, there was a significant correlation between the SWAI and the Supervisory Styles Inventory, which supported both the convergent and divergent validity of SWAI. The SWAI has a good reported internal consistency score of .95 (Wester et al., 2004).

The SWAI-T was validated originally in a sample of 178 trainees mainly from clinical and counseling psychology programs, and they were supervised under various settings (Efstation, et al., 1990). The majority (n = 103) of trainee participants identified as women and 73 identified as men and 2 were gender-unidentified (Efstation, et al., 1990). Trainees reported an average of 5.70 years of therapy experience, with a standard deviation of 7.89 (Efstation, et al., 1990). The SWAI-T was also used in counseling students in practicum and internship training levels and counseling practitioners (e.g., Li et al., 2021).

Corrective Feedback Acceptance and Synthesis in Supervision (CFASS)

To assess the likelihood of using feedback, the Corrective Feedback Acceptance and Synthesis in Supervision (CFASS; Goodrich et al., 2021; Appendix G) will be used. The CFASS was developed by Goodrich and colleagues (2021) to assess supervisees' self-reported easiness and likelihood to accept, incorporate, apply, and seek out corrective feedback, as well as their willingness to return to clinical supervision after receiving corrective feedback–ultimately likelihood of using feedback. The CFASS filled the gap of no preexisting measure that assesses supervisees' response to supervisory feedback directly. The CFASS consists of five items, each rated on a 6-point Likert scale, ranging from 1 to 6. Labeling of the Likert-type scale slightly differs based on each item. For the "apply/use" item, 1 indicates "not very likely", 3 indicates

"somewhat likely" and 6 indicates "absolutely will use it"; for all other items, 1 represents "almost impossible", and 6 represents "easily". The formal total score was computed by summing the individual item scores to one overall total score. Some examples are "How easy is it to accept critical feedback from your clinical supervisor to improve your counseling skills?" and "How likely is it that you will apply/use the feedback you receive from your supervision in the future?".

The factor analysis of the CFASS revealed a single-factor structure. The CFASS exhibited robust internal consistency, as evidenced by a Cronbach's alpha coefficient of 0.861. Additionally, another measure of internal consistency, the Omega coefficient, yielded a value of 0.874. Furthermore, in a study conducted by Goodrich and colleagues (2021), significant negative correlations were found between the CFASS and various measures associated with supervisees' behaviors and experiences. These measures included the Cognitive Distortions Scale, the Adult Attachment Scale-Anxiety Subscale, the Corrective Feedback Instrument-Revised, and the Feelings Experienced in Supervision Scale. These findings provided support for both convergent and divergent validity, aligning with expectations and theoretical frameworks.

The CFASS was validated in a sample consisting of 73 master's level students from 4 different universities accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), and students were enrolled in either practicum or internship classes (52 participants were enrolled in internship programs, while 21 participants were in practicum at the time of the study) and represented various counseling tracks. No research was found using the CFASS besides the original study, which was published in 2021.

Procedures

After obtaining the approval of the university's institutional review board, participants were recruited through convenient and snowball sampling. The author of this study emailed faculty (i.e., CACREP liaisons or other faculty) and counseling students from more than 300 CACREP-accredited master's programs (randomly selected from the CACREP website) with the recruitment information (Appendix H, I), asking them to forward the recruitment information to students who may fit with the inclusion criteria. The recruitment information included the purpose of the study, a summary of inclusion criteria, a summary of study procedures (e.g., time required by participants), a link to the online Qualtrics survey and consent form, and also the compensation-related information. Participants were provided instructions before the instruments, and they were asked to think about their most recent (within three months) individual supervisor and experience of receiving corrective feedback from that one specific supervisor. All data were collected via Qualtrics online survey and were stored in a secure account with a password. The survey contained informed consent (Appendix J), demographic questionnaires, and the above-stated five measures.

Data Analysis

Preliminary analysis was conducted on the modified SSFL to ensure reliability and factor structure align with the created measure, given the original SSFL is being slightly modified for the current study. To answer the research questions, multiple linear regression was used. Research questions 1 and 2 was specifically utilized a moderation analysis outlined by Baron and Kenny (1986). See Table 2. Overview of Research Questions, Hypotheses, Variables, and Analyses for an overview of research questions, hypotheses, variables, and data analyses.

Table 2. Overview of Research Questions, Hypotheses, Variables, and Analyses

Research Questions	Hypothesis	Independent Variables	Dependent Variables	Data Analysis
1a. Does supervisees' feedback literacy (i.e., assessed across six dimensions) relate to their likelihood of using supervisory corrective feedback, while controlling for supervisory working alliance? 1b. Do supervisees' levels of anxious attachment moderate the relationship between supervisees' feedback literacy (across all six dimensions) and supervisees' likelihood of using supervisory corrective feedback, controlling for supervisory working alliance?	1a. Controlling for the supervisory working alliance, all 6 dimensions of supervisees' feedback literacy will be positively and significantly related to supervisees' likelihood of using supervisory corrective feedback. 1b. Supervisees' levels of anxious attachment will moderate the relationship between supervisees' feedback literacy (across all six dimensions) and supervisees' likelihood of using supervisory corrective feedback. Specifically, at higher levels of anxious attachment, the positive correlation between feedback literacy and the likelihood of using supervisory corrective feedback will become weaker.	6 dimensions of the scale of supervisees' feedback literacy (SSFL-Modified), each dimension will serve as 1 predictor. Moderator: Supervisees' perceived levels of anxious attachment to their supervisors (SASS-Rejection subscale) Controlling Variable: Supervisees' perceived supervisory working alliance (SWAI-T)	Supervisees' perceptions of the likelihood of using feedback after receiving corrective supervisory feedback (CFASS)	Multiple Linear Regression, and Moderation Analysis
2a. Do supervisees' six dimensions of feedback literacy predict their feelings around receiving corrective	2a. The 6 dimensions of supervisees' feedback literacy will be significantly negatively related to their feelings around	6 dimensions of the scale of supervisees' feedback literacy	Supervisee's feelings after receiving feedback (FESS)	Multiple Linear Regression, and Moderation Analysis

| feedback, controlling for supervisory working alliance?

2b. Do supervisees' levels of anxious attachment moderate the relationship between six dimensions of supervisees' feedback literacy and their feelings around receiving corrective feedback, controlling for supervisory working alliance? | receiving corrective supervisory feedback. Controlling for the supervisory working alliance, higher feedback literacy will be associated with decreased supervisees' negative feelings.

2b. Supervisees' levels of anxious attachment will moderate the relationship between the six dimensions of supervisees' feedback literacy and their feelings about receiving feedback. Specifically, the relationship will be stronger at higher levels of supervisees' attachment anxiety. | (SSFL-Modified) , each dimension will serve as 1 predictor.

Moderator: Supervisees' perceived levels of anxious attachment to their supervisors (SASS-Rejection subscale)

Controlling Variable: Supervisees perceived supervisory working alliance (SWAI-T) | | |
|---|---|---|---|---|

Pilot Study

The purpose of the pilot study was to test the instrumentation, specifically to assess the clarity of the instructions and items of the modified version of the SSFL.

Research Question

Did the modified SSFL apply to the clinical supervision context appropriately? Were the instructions and items on the SFLS clear and easy to understand?

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Method

Participants

To answer the research questions, three participants were recruited, and those participants also met the inclusion criteria: (a) Currently or recently (in the last 3 months) enrolled in a CACREP-accredited counseling master program, (b) currently or recently (in the last 3 months) enrolled in the clinical practicum or internship, where they receive individual supervision, (c) supervisor in the practicum or internship provided corrective feedback, and (d) over 18 years old.

Procedures

Three participants were recruited via purposive convenience sampling via word of mouth and emails. They were asked to conduct a Zoom cognitive interview with the researcher. The researcher sent them a copy of the electronic version of the modified SSFL just before the Zoom interviews. At the beginning of the interview, the researcher briefly introduced participants to the think-aloud method and provided an example of how it would be used in the cognitive interview. The think-aloud method was used when participating in reading instruction and each item, followed by the verbal probes (Peterson et al., 2017). Specifically, as the participants read through the instructions and items, the researcher asked spontaneous questions to gather data on participants' understanding and feedback regarding the modified SSFL. The researcher emphasized the purpose of the interview was to understand participants' thought processes rather than justifying their answers.

Measures

All participants were asked the following cognitive questions at the time they were reading the instructions or the items on the SFLS and would describe aloud their thinking.

Questions that were asked while participants read through the instructions:

1. When you read the "corrective feedback" definition, tell me what contexts you are thinking about and your understanding of corrective feedback.

2. Are the instructions for the measure clear?

    a. Probing question: If not, do you have suggestions for alternative wording to make it clearer or more aligned with the individual supervision context?

Participants will also be asked each of the below questions as they read each item:

1. How well does this question apply to you or to your experience in supervision?

2. Are there any words that seem awkward or inappropriate in this item as it relates to the supervision context?

    a. If yes, could you suggest alternative wording that would better align with the individual supervision context?

3. What words or phrases - if any - within the item do you find vague or ambiguous, and how might you rephrase them for better clarity?

4. Were you able to find your first answer to the question from the response options shown?

Questions that were asked at the completion of the overall measure:

1. What do you think about this questionnaire?

Data Analysis

The research question of this pilot study was answered through participants' subjective data from the cognitive interview. The collected information was solely for the purpose of clarifying instructions and items in the measure. Participants' descriptive data and responses to interview questions were collected.

Results

Corrective Feedback Definition/Understanding

All participants responded that the definition of corrective feedback was clear and fit their clinical supervision experience. They could quickly think of corrective feedback situations in the individual supervision context and provided examples that aligned well with the definition. For example, one participant discussed a time the supervisor pointed out an observation of their in-session behaviors and helped them to reflect on how to do something differently.

Measure Instruction

All participants responded that they could understand the instruction, but two of them reported that the last sentence in the instruction was too long and could be broken down into two sentences.

Clarity and Applicability

Overall, participants reported that most items were easily understood, applied to the supervision context well, and also covered many important aspects regarding supervisees' experiences with feedback. Some items needed slight rewording. All reworded items and the final draft of the SSFL-modified can be found in Appendix B.

During the interviews, participants mentioned that some wording of the items was not appropriate in the supervision context or was causing confusion. Specifically, in the "eliciting dimension," one participant pointed out that the phrase "what is good work" in the item "I am good at communicating with my supervisor to elicit useful information about what is good work" was a bit awkward. They suggested replacing it with "expectation of clinical work." Additionally, two participants reported that the phrase "improve my learning" in the item "I am good at seeking feedback from different sources (e.g., supervisor, peers) to improve my learning"

may not be the best fit in the supervision context, and it could be changed to "my clinical performance/development." Furthermore, two participants reported that the phrase "standards of work required by supervisor" in the item "I am good at accurately interpreting the standards of work required by my supervisor" was vague and hard to understand. Changing it to "ACA code of ethics and evaluation criteria" would make it easier to understand.

In the "processing dimension", two participants suggested replacing "judging" with "evaluating" in the item "I am good at judging the quality of my supervisor's feedback on my work." They also reported that they seldom thought about this item, but the item itself was easily understood. Additionally, two participants suggested replacing "different reasons that my supervisors have when they provided feedback…" with "different rationale of supervisory feedback" in the statement "Recognizing the different reasons that my supervisor has when they provide feedback on my clinical performance/development."

In the "enacting dimension," two participants felt confused by "managing time" in the statement "I am good at managing time to implement useful supervisory feedback." They suggested replacing "managing time" with "making time" or "identifying appropriate timing". Additionally, one participant shared a concern about not being sure of the focus of the sentence and also suggested deleting "useful" to make the focus of the sentence more obvious.

In the "appreciation of feedback dimension," two participants suggested changing the wording "…provide me a chance … from other perspectives" to "…provide me another perspective to look at…" in the item "I have realized that feedback from my supervisor can provide me a chance to look at my clinical performance/development from other perspectives." Two participants understood the "learning strategies" of the item "I have realized that feedback from my supervisor can enable me to learn effective learning strategies from my supervisor" in

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different ways. One participant shared that they understood the learning strategies more as "what the supervisor suggested to do to master a clinical skill", and another participant shared that they understood learning strategies as "counseling strategies or approaches". Additionally, two participants suggested replacing "systematically" with "comprehensively" in the item "I have realized that feedback from my supervisor can enhance my self-reflection on how I can systematically improve my clinical performance" to make the wording sound easier to understand.

In the "readiness to engage dimension," one participant suggested replacing "criticism" with "corrective feedback" in the item "I am always ready to accept criticism on the quality of my clinical performance" since it sounds more appropriate and also fits with the study context.

In the "commitment to change dimension," one participant pointed out that the wording "overcome hesitation" is awkward in the item "I am always willing to overcome hesitation to make changes according to the supervisory feedback I get" and suggested changing it to "be committed to".

Discussion

Based on the findings, the definition of corrective/constructive feedback appears suitable and aligned well with the participants' supervision experiences, so it will remain unchanged. Additionally, the instruction will be modified as "Take a moment and consider one of your most recent supervisors who provided you constructive/corrective feedback in individual supervision. Please rate each of the following statements that best describes your own perception of what is true for you regarding corrective feedback, with the specific supervisor you identified.", to enhance its clarity.

Regarding the wording of the measure, in the "eliciting dimension", minor changes will be made. The phrase "what is good work" in the item "I am good at communicating with my supervisor to elicit useful information about what is good work" will be changed to "expectation of clinical work". Additionally, the "improve my learning" in the item "I am good at seeking feedback from different sources (e.g., supervisor, peers) to improve my learning." will be changed into "improve my clinical performance/development", making the expression more direct and fitting with the supervision context. Furthermore, for the item "I am good at accurately interpreting the standards of work required by my supervisor", the participants suggested changing "standards of work required by my supervisor" to "ACA code of ethics and evaluation criteria". However, considering this may narrow the original meaning and cause confusion by using "and", the author decided to revise the original item to "I am good at accurately interpreting my supervisor's expectations or standards of my clinical performance" for better clarity and alignment with the original intent.

In the "processing dimension", the "judging" in the item "I am good at judging the quality of my supervisor's feedback on my work" will be replaced with "evaluating" to convey a similar meaning in a more neutral way. Although participants mentioned that they were not intentionally encouraged by their supervisors to do this, it is still considered a part of feedback literacy, so this item will be retained. Additionally, the expression "different reasons that my supervisors has when they provided feedback…" will be replaced with "different rationale of supervisory feedback" in the item "Recognizing the different reasons that my supervisor has when they provided feedback on my clinical performance/development." The updated expression conveys a similar meaning more directly and understandably.

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In the "enacting dimension", the "managing time" in the statement "I am good at managing time to implement the useful supervisory feedback" will be replaced with "identify appropriate timing" to convey the idea more directly in the supervision context. Additionally, the "useful" will be deleted to enhance the clarity of the item.

In the "appreciation of feedback dimension", the wording " …provide me a chance ….from other perspectives" will be changed to "...provide me another perspective to look at…" in the item of "I have realized that feedback from my supervisor can provide me a chance to look at my clinical performance/development from other perspectives.", as the updated wording expresses a similar idea but in a more easily understandable way. Additionally, the item "I have realized that feedback from my supervisor can enable me to learn effective learning strategies from my supervisor", will be changed into "I have realized that feedback from my supervisor can enable me to learn effective learning strategies to improve my clinical performance/development", to make it more comprehensible in the context of supervision. Furthermore, the "systematically" will be replaced with "comprehensively" in the item "I have realized that feedback from my supervisor can enhance my self-reflection on how I can systematically improve my clinical performance", as the wording better aligns with supervision and counseling contexts.

In the "readiness to engage dimension", the "criticism" will be replaced with "corrective feedback" in the item "I am always ready to accept criticism on the quality of my clinical performance", as it sounds more neutral and also fits with the study context.

In the "commitment to change dimension", although a participant reported the wording "overcome hesitation" may not be the best expression in the item "I am always willing to overcome hesitation to make changes according to the supervisory feedback I get", it did not

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significantly influence the overall understanding of this item. Furthermore, two participants felt the original expression was acceptable, so the item will remain unchanged.

CHAPTER IV: RESULTS

The purpose of this study was to explore the relationships between supervisees' feedback literacy (i.e., assessed crossed 6 dimensions), their emotional response after receiving corrective feedback, and their likelihood of using supervisory corrective feedback. The author also investigated the moderating role of supervisees' attachment anxiety on these relationships, when controlling for supervisees perceived supervisory working alliance. This chapter presents the results of the study, including demographics of participants, descriptive statistics for the study variables, and the results of analyses used to test the research hypotheses.

Data Screening and Preparation

After dataset was downloaded from Qualtrics, it was examined for missing values. In the survey, a total of 123 responses were recorded, with 114 participants completing all five measures. Nine participants dropped out during the survey process, resulting in a 7.3 % rate of missing data. In this study, the researcher used the likewise deletion, which is default approach in SPSS, to handle the missing data. By following this approach, data analysis excluded cases with missing values on any of the variables, and only cases with complete data on all variables were retained in data analysis. Cases with missing values on any of the items within a scale were automatically removed from the computation, when calculating the scale scores for each variable.

Sample

After engaging in data cleaning, and then applying the inclusion criteria based on the first four screening questions, 114 participants were included in final data analysis (see demographic information in Table 3). Participants were currently or recently (within three months) enrolled in a CACREP-accredited counseling master's program, engaged in practicum ($n = 54$) or internship

(n = 60), and had received constructive/corrective feedback from their supervisor in the individual supervision.

Ages of the participants in the total sample ranged from 18 to 24 years old to 45 to 54 years old. Majority (44.7%) of participants fell within the 25-34 years old age group. For the gender identity, 72.8% participants identified as cisgender women, 20.2% identified as cisgender man, 0.9% as transgender man, 5.3% as gender nonbinary, 1 participant did not respond to this question. Regarding sexual and/or affectional identities, 64% identified as straight, 2.6% as gay, 4.4% as lesbian, 5.3% as queer, 5.3% as pansexual, 14% as bisexual, 2.6% as asexual, and 1.8% as others (i.e., questioning).Participants reported their racial and ethnic identities as follows: 57.9% White or Caucasian, 7.0% Black or African American, 14.0% Asian, 7.9% Latino/Latina/Latinx, 3.5% Hispanic, 0.88% Arab American, 6.14% Multiracial, and 2.63% identified as others or missing the question. Regarding citizenship/immigration status, 91.2% were United States citizens, 7.9% were international students, 0.9% selected others (i.e., legal resident).

For the participants' training specialties, among the 114 participants, 78.9% is clinical mental health counseling, 13.2% is school counseling, 8.8% is marriage, couple and family counseling, 4.4% is rehabilitation counseling, and 0.9% is college counseling and student affairs. There are 6.2% participants have dual training expertise.

Table 3. Descriptive Statistics of Participants' Characteristics

Characteristics	n	%
Racial/Ethnic Identity		
White or Caucasian	66	57.9
Black or African American	8	7

Asian	16	14
Latino/Latina/Latinx	9	7.9
Hispanic	4	3.5
Arab American	1	0.88
Multiracial	7	6.14
Other/missing	3	2.63
Age Range		
18-24 years old	47	41.2
25-34 years old	51	44.7
35-44 years old	10	8.8
45-54 years old	6	5.3
Gender Identity		
Cisgender woman	83	72.8
Cisgender man	23	20.2
Transgender man	1	0.9
Gender nonbinary	6	5.3
Questioning	6	0.9
Sexual/Affectional Identity		
Straight	73	64
Gay	3	2.6
Lesbian	5	4.4
Queer	6	5.3
Pansexual	6	5.3

Bisexual	16	14
Asexual	3	2.6
Questioning	2	1.8
Citizenship/Immigration Status		
United States citizen	104	91.2
International student	9	7.9
Other (indicated as legal resident)	1	0.9
Training Level		
Practicum	54	47.4
Internship	60	52.6
Training Specialty (Dual tracks will choose any applies)		
Clinical Mental Health Counseling	90	78.9
School Counseling	15	13.2
Marriage, Couple, and Family Counseling	10	8.8
Rehabilitation Counseling	5	4.4
College Counseling and Student Affairs	1	0.9
Dual Track (chose 2 specialties)	7	6.2

Preliminary Analyses

Reliability Analysis of the Modified SSFL

Before conducting the main analyses, the modified Scale of Student Feedback Literacy

(SSFL; Zhan, 2022) was examined for its reliability to evaluate the internal consistency of entire

scale and each of its six subscales (six dimensions). Cronbach's alpha coefficients were examined for the entire scale and each of its six subscales.

The Cronbach's alpha coefficients for the six dimensions (i.e., six subscales) of the modified SSFL were as follows: Eliciting: α = .902; Processing: α = .923; Enacting: α = .914; Appreciation of feedback: α = .952; Readiness to engage: α = .945; Commitment to change: α = .877. Having 5 out of 6 subscales with Cronbach's alpha above 0.9 is outstanding, indicating excellent internal consistency within those subscales, with a Cronbach' s alpha of 0.877 also considered good and well above the generally accepted threshold of 0.7 (George & Mallery, 2016). Thus, the whole scale and all six subscales were above 0.877 indicating good internal consistency.

Confirmatory Factor Analysis (CFA) Result of the modified SSFL

Confirmatory Factor Analysis (CFA) was conducted to assess the factorial validity of the modified Scale of Student Feedback Literacy (SSFL; Zhan, 2022) using Mplus. The six-factor structure of the scale, proposed by Zhan (2022) was examined. The goodness-of-fit of the CFA model was assessed by several model fit indices, including the Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). The following cut-off values were used to determine acceptable model fit: CFI $\geqslant$ .90, TLI $\geqslant$ .90, RMSEA $\leqslant$ .08, and SRMR $\leqslant$ .08 (Kline, 2023). The CFA results of the modified SSFL as follows: CFI= .95; TLI = .94; RMSEA = .08 (90% CI: .06 - .09); SRMR = .04. The CFA model results showed acceptable fit to the data. While CFI, TLI, and SRMR all indicated acceptable fit, the RMSEA value was slightly above the recommended cut-off of 0.08 (Kline, 2023), suggesting a mediocre fit. It is important to note that running a CFA on such a small sample size is not recommended, and the results may not

accurately reflect how these items might factor within the counseling population. Future studies should examine factor structure of the modified SSFL in a larger sample size.

The factor loadings of the modified SSFL ranged from .648 to .934 (see Table 5). All factor loadings were statistically significant at p < .001. The result of model fit indices and factor loadings provide support for the factorial validity of the six-factor structure of the modified SSFL.

Table 4. Model Fit Indices for the Modified Scale of Student Feedback Literacy (SSFL)

Fit Index	Value
Chi-Square (χ^2)	392.46
Degrees of Freedom (df)	237
p-value	0.00**
CFI	0.95
TLI	0.94
RMSEA	0.08
0% CI for *RMSEA*	[0.06, 0.09]
p-value for *RMSEA* $\leq$ 0.05	0.00**
SRMR	0.04

Note. CFI = Comparative Fit Index; *TLI* = Tucker-Lewis Index; *RMSEA* = Root Mean Square Error of Approximation; *CI* = Confidence Interval; *SRMR* = Standardized Root Mean Square Residual.

Table 5. Factor Loadings of Modified SSFL

	Estimate	Two-Tailed

		S.E.	Est./S.E.	P-Value
ELICITING BY				
ELICIT1	0.890	0.024	37.068	0.000**
ELICIT2	0.770	0.042	18.468	0.000**
ELICIT3	0.899	0.023	39.230	0.000**
ELICIT4	0.815	0.034	23.643	0.000**
PROCESS BY				
PROCESS1	0.899	0.020	43.891	0.000**
PROCESS2	0.846	0.029	29.458	0.000**
PROCESS3	0.856	0.027	31.344	0.000**
PROCESS4	0.864	0.026	33.478	0.000**
ENACTING BY				
ENACT1	0.886	0.024	37.300	0.000**
ENACT2	0.898	0.022	41.040	0.000**
ENACT3	0.778	0.040	19.517	0.000**
ENACT4	0.860	0.028	31.125	0.000**
APPRECIATION BY				
APR1	0.934	0.016	59.923	0.000**
APR2	0.891	0.022	39.700	0.000**
APR3	0.921	0.018	52.357	0.000**
APR4	0.906	0.020	46.021	0.000**
READINESS BY				
R1	0.897	0.022	41.545	0.000**

R2	0.926	0.017	53.549	0.000**
R3	0.874	0.025	34.768	0.000**
R4	0.909	0.020	45.186	0.000**
COMMITMENT BY				
COMMIT1	0.882	0.026	34.066	0.000**
COMMIT2	0.858	0.029	29.208	0.000**
COMMIT3	0.851	0.030	27.922	0.000**
COMMIT4	0.648	0.058	11.178	0.000**
PROCESS WITH				
ELICITING	0.963	0.018	52.308	0.000**
ENACTING WITH				
ELICITING	0.896	0.029	30.745	0.000**
PROCESSING	0.938	0.021	44.463	0.000**
APPRECIATION WITH				
ELICITING	0.815	0.039	21.128	0.000**
PROCESSING	0.845	0.034	25.179	0.000**
ENACTING	0.721	0.051	14.009	0.000**
READINESS WITH				
ELICITING	0.749	0.049	15.348	0.000**
PROCESSING	0.741	0.049	15.141	0.000**
ENACTING	0.756	0.047	16.045	0.000**
APPRECIATION	0.791	0.040	19.654	0.000**
COMMITMENT WITH				

ELICITING	0.809	0.043	18.699	0.000**
PROCESSING	0.840	0.037	22.430	0.000**
ENACTING	0.861	0.034	25.024	0.000**
APPRECIATION	0.720	0.053	13.615	0.000**
READINESS	0.863	0.032	26.695	0.000**

$p<0.01**$

Preliminary Analysis to Check Regression Assumptions

Normality of Residuals

Normality of residuals was examined by using histograms and normal probability plots (P-P plots) of the residuals. For all research questions, the histograms showed approximately normal distributions, and the P-P plots indicated that the residuals closely followed the diagonal line, supporting the assumption of normality.

Multicollinearity

The VIF (Variance Inflation Factor), condition index and tolerance values provide information about potential multicollinearity among the predictors in the model (refer to Tables 7, 9, 11, and 13 for VIF, tolerance and condition index). For the multicollinearity statistics of model 1 (see Table 7), tolerance values fall between .120 to .353, and a number of predictors (eliciting, processing and enacting) have values less than conservative threshold 0.2 but still above the common cutoff of 0.1 (Kim, 2019). These low tolerance values indicate that a substantial portion of the variance in these predictors can be explained by the other predictors in the model. Additionally, the VIF values of several predictors (eliciting, processing and enacting) were above the threshold of 5 (Kim, 2019), and all values of condition index were above

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conservative threshold of 10 and among them, there were four condition indices were beyond the common threshold 30, which indicates the multicollinearity exits.

For the multicollinearity statistics of model 2 (see Table 9), tolerance values fall between .086 to. 672, and the interaction between eliciting and attachment anxiety was below the strict threshold of 0.1, and several predictors were lower than the common threshold of 0.2 (Kim, 2019). These low tolerance values indicate that a substantial portion of the variance in these predictors can be explained by the other predictors in the model. Additionally, the VIF values of six predictors (eliciting, processing, enacting, interaction between eliciting and attachment anxiety, interaction between processing and attachment anxiety, and interaction between enacting and attachment anxiety) were above the threshold of 5 (Kim, 2019), and there were three predictors' values of condition index were above conservative threshold of 10 and among them, there were one condition index were beyond 30. Those indicated the multicollinearity exits based on the criteria presented by Kim (2019).

For the multicollinearity statistics of model 1 (see Table 11), tolerance values fall between .120 to .353, and a number of predictors (eliciting, processing and enacting) have values less than common threshold 0.2 but still above the common cutoff of 0.1 (Kim, 2019). These low tolerance values indicate that a substantial portion of the variance in these predictors can be explained by the other predictors in the model. Additionally, the VIF values of several predictors (eliciting, processing and enacting) were above the threshold of 5 (Kim, 2019), and all values of condition index were above conservative threshold of 10 and among them, there were four condition indices were beyond 30, which indicates the multicollinearity exits.

For the multicollinearity statistics of model 2 (see Table 13), tolerance values fall between .086 to. 672, and the interaction between processing and attachment anxiety was below

the strict threshold of 0.1, and several predictors were lower than the common threshold of 0.2 (Kim, 2019). These low tolerance values indicate that a substantial portion of the variance in these predictors can be explained by the other predictors in the model. Additionally, the VIF values of seven predictors were above the threshold of 5 (Kim, 2019), among them the VIF of interaction between the processing and attachment anxiety was very high (11.599 >10). There were three predictors' values of condition index were above conservative threshold of 10 and among them, there were one condition index were beyond 30. Those indicated the multicollinearity exits based on the criteria presented by Kim (2019).

In summary, from the presence of low tolerance values (< 0.1), high VIF values (> 10) and high condition indices (>30) indicates potential multicollinearity issues in the model. To decrease multicollinearity in the moderation analyses, the author tried removing some feedback literacy variables that may cause the multicollinearity but keep all interaction terms; however, the conclusion of the moderation analyses were still the same. The stability and interpretability of the regression coefficients may be impacted by multicollinearity, which makes it challenging to evaluate the relative contributions of each predictor. Further discussion multicollinearity's impact on results can be found in the chapter V.

Results of Multiple Linear Regression Analyses

Research Question 1a

A multiple linear regression analysis was conducted to assess the relationship between supervisees' feedback literacy (i.e., assessed across six dimensions) and their likelihood of using supervisory corrective feedback, while controlling for supervisory working alliance. The regression model was significant, $F(8, 105) = 3.11$, $p = .003$, $R^2 = .19$, and adjusted $R^2 = .13$.

The R^2 value indicated a medium effect based on the threshold presented by Balkin and Lenz (2021).

None of the feedback literacy dimensions were significant predictors of the likelihood of using supervisory corrective feedback (see Table 6). The rapport subscale of the supervisory working alliance inventory was a significant predictor, indicating a positive relationship ($\beta = 0.374$, $p = .015$). The client focus of the supervisory working alliance inventory was not a significant predictor (see Table 6).

Table 6. Coefficients Result for Research Question 1a (Model 1)

Variable	B	*SE*	β	t	*Sig.*
Constant	16.171	2.214		7.304	0
SWA_ClientFocus	0.328	0.433	0.112	0.756	0.451
SWA_Rapport	1.238	0.502	0.374	2.465	0.015*
Eliciting	-0.109	0.169	-0.138	-0.644	0.521
Processing	-0.009	0.199	-0.011	-0.044	0.965
Enacting	0.064	0.163	0.080	0.394	0.695
Appreciation	-0.044	0.122	-0.061	-0.362	0.718
Readiness	0.059	0.135	0.076	0.436	0.664
Commitment	0.028	0.136	0.034	0.203	0.84

Note. SWA=Supervisory Working Alliance. P<0.05*

Table 7. Multicollinearity Diagnostic Statistics for Model 1

Model	Tolerance	VIF	Condition Index
Constant			1

SWA_ClientFocus	0.353	2.832	10.4
SWA_Rapport	0.335	2.983	19.1
Eliciting	0.167	5.984	22
Processing	0.120	8.358	24.9
Enacting	0.187	5.358	33.9
Appreciation	0.269	3.721	35.6
Readiness	0.256	3.900	39.8
Commitment	0.267	3.743	49.1

*Note. SWA=*Supervisory Working Alliance.

Research Question 1b

A moderation analysis was conducted in SPSS to examine whether supervisees' levels of anxious attachment moderated the relationship between supervisees' feedback literacy (i.e., across all six dimensions) and their likelihood of using supervisory corrective feedback, controlling for supervisory working alliance. The regression model was significant, $F (15, 98) = 3.071$, $p < .001$, $R^2 = .320$, and adjusted $R^2 = .216$. The R^2 value indicated a large effect based on the threshold presented by Balkin and Lenz (2021), suggesting that the predictors, interaction terms, and control variables together account for 32% of the variance in supervisees' likelihood of using feedback.

No interaction terms were statistically significant ($p > .05$), suggesting that there is no significant statistical evidence supporting supervisees' levels of anxious attachment moderate the relationship between any of the six dimensions of feedback literacy and supervisees' likelihood of using feedback when controlling for supervisory working alliance. For control variables, both subscales (rapport and client focus subscales) of supervisory working alliance inventory were not

statistically significant predictors of supervisees' likelihood of using feedback at the .05 level (see Table 8). The main effect of supervisees' anxious attachment was significant, indicating a negative relationship ($\beta = -.282$, $p = .007$, see Table 8), and the result indicates that higher levels of anxious attachment were correlated with a lower likelihood of using supervisory corrective feedback. Overall, the results show that no moderation relationship exists, but the supervisees' level of attachment anxiety has a direct effect on the supervisees' likelihood of using feedback.

Table 8. Coefficients Result for Research Question 1b (Model 2)

Variable	B	*SE*	β	t	*Sig.*
(Constant)	18.701	2.101		8.901	0.000
Zscore(Eliciting)	-0.121	0.755	-0.035	-0.160	0.873
Zscore(Processing)	-0.762	0.872	-0.223	-0.874	0.384
Zscore(Enacting)	0.022	0.691	0.006	0.032	0.974
Zscore(Appreciation)	0.478	0.637	0.140	0.750	0.455
Zscore(Readiness)	0.293	0.585	0.086	0.501	0.617
Zscore(Commitment)	0.804	0.594	0.236	1.352	0.179
Zscore(SASS_Anxiety)	-0.961	0.347	-0.282	-2.771	0.007**
Elicit*SASS_Anxiety	0.206	0.856	0.058	0.241	0.810
Process*SASS_Anxiety	0.491	0.993	0.140	0.495	0.622
Enact*SASS_Anxiety	0.396	0.684	0.113	0.578	0.565
Appreciation*SASS_Anxiety	0.164	0.513	0.050	0.320	0.750
Readiness*SASS_Anxiety	-0.395	0.655	-0.104	-0.603	0.548
Commitment*SASS_Anxiety	0.389	0.627	0.107	0.621	0.536
SWA_ClientFocus	0.176	0.457	0.060	0.386	0.700

SWA_Rapport	0.918	0.521	0.277	1.764	0.081

Table 9. Multicollinearity Diagnostic Statistics for Model 2

Variable	Tolerance	VIF	Condition Index
(Constant)			1
Zscore(Eliciting)	0.142	7.052	1.6
Zscore(Processing)	0.106	9.399	1.9
Zscore(Enacting)	0.169	5.9	2.5
Zscore(Appreciation)	0.199	5.022	3
Zscore(Readiness)	0.236	4.234	3.8
Zscore(Commitment)	0.229	4.372	4.7
Zscore(SASS_Anxiety)	0.672	1.488	5.7
Elicit*SASS_Anxiety	0.118	8.441	6
Process*SASS_Anxiety	0.086	11.599	7.3
Enact*SASS_Anxiety	0.181	5.512	7.6
Appreciation*SASS_Anxiety	0.288	3.471	7.9
Readiness*SASS_Anxiety	0.234	4.28	9.6
Commitment*SASS_Anxiety	0.233	4.288	11.8
SWA_ClientFocus	0.286	3.495	23.1
SWA_Rapport	0.281	3.557	37.2

analysis purposes).

Research Question 2a

A multiple linear regression analysis was conducted to assess the relationship between six dimensions of supervisees' feedback literacy and supervisee's feelings after receiving corrective feedback, while controlling for supervisory working alliance. The regression model was significant, F (8, 105) = 8.353, $p < .001$, $R^2 = .389$, and adjusted $R^2 = .342$. The R^2 value indicated a large effect based on the threshold presented by Balkin and Lenz (2021), suggesting that the predictors and control variables together account for 38.9% of the variance in supervisees' negative emotional responses.

For the regression coefficients and significance, the commitment to change dimension of feedback literacy ($\beta = .408$, $p = .007$) was a significant positive predictor of the supervisees' negative feelings after receiving corrective feedback (see Table 10). The rapport subscale of the supervisory working alliance inventory was also a significant predictor ($\beta = -.404$, $p = .003$), indicating a negative relationship with supervisees' negative emotional responses after receiving feedback. Eliciting, processing, enacting, readiness of engagement, and appreciation of feedback dimensions were not significant predictors (see Table 10 for coefficients related statistics).

Table 10. Coefficients Result for Research Question 2a (Model 3)

Variable	B	*SE*	β	t	*Sig.*
(Constant)	36.901	4.217		8.750	0.000
SWA_ClientFocus	-1.298	0.825	-0.202	-1.573	0.119
SWA_Rapport	-2.935	0.956	-0.404	-3.069	0.003
Eliciting	0.142	0.321	0.083	0.442	0.659

Processing	-0.584	0.379	-0.340	-1.542	0.126
Enacting	-0.138	0.311	-0.078	-0.443	0.659
Appreciation	0.320	0.232	0.203	1.379	0.171
Readiness	-0.182	0.258	-0.106	-0.706	0.482
Commitment	0.718	0.260	0.408	2.764	0.007**

Note. *SWA*=Supervisory Working Alliance. Zscore=Standardized Score (for moderation analysis purposes). *p*<0.01**

Table 11. Multicollinearity Diagnostic Statistics for Model 3

Variable	Tolerance	VIF	Condition Index
(Constant)			1
SWA_ClientFocus	0.353	2.832	10.4
SWA_Rapport	0.335	2.983	19.1
Eliciting	0.167	5.984	22.1
Processing	0.12	8.358	24.9
Enacting	0.187	5.358	33.9
Appreciation	0.269	3.721	35.6
Readiness	0.236	3.9	39.8
Commitment	0.267	3.743	49.1

Note. *SWA*=Supervisory Working Alliance.

Research Question 2b

A moderation analysis was conducted in SPSS to examine whether supervisees' levels of anxious attachment (SASS_Anxiety) moderated the relationship between six dimensions of supervisees' feedback literacy (i.e., across all six dimensions) and their feelings after receiving

corrective feedback (FESS_Total), controlling for supervisory working alliance (SWA_Client focus and SWA_Rapport) (see Table 12). The regression model was significant, F (15, 98) = 18.49, $p < .001$, $R^2 = .739$, and adjusted $R^2 = .699$. The R^2 value indicated a large effect based on the threshold presented by Balkin and Lenz (2021), suggesting that the predictors, interaction terms, and control variables together account for 73.9% of the variance in supervisees' feelings after receiving corrective feedback.

The interaction term between the appreciation dimension of feedback literacy and supervisees' levels of anxious attachment (INT_Appreciation) was a significant negative predictor of supervisees' negative feelings after receiving corrective feedback ($\beta = -. 422$, $p= .000$, see Table 12 and Interaction Plot in Graph 1). The interaction plot (see Graph 1) illustrates that the relationship between appreciation of feedback and negative emotional responses was moderated by the level of attachment anxiety. The blue line, representing low appreciation of feedback, has a steeper slope compared to the red line, which represents high appreciation of feedback. This suggests that supervisees with low appreciation of feedback are more susceptible to experiencing greater negative emotional responses as their attachment anxiety increases. In contrast, the shallower slope of the red line indicates that a high appreciation of feedback plays a mitigating role in the relationship between attachment anxiety and negative emotional responses. Supervisees who value and appreciate supervisory feedback are less likely to experience a substantial increase in negative emotions as their attachment anxiety increases. This finding highlights the importance of fostering an appreciation for feedback among supervisees, as it can serve as a protective factor to mitigate negative emotional reactions, particularly for those with high attachment anxiety. Furthermore, the interaction plot reveals that the moderating effect of appreciation on the relationship between attachment anxiety and negative emotional responses

becomes more distinct at higher levels of attachment anxiety. The greater difference in the negative feelings between the two lines at the right end of the plot signifies that the mitigating role of appreciation is more crucial for supervisees with high attachment anxiety.

Additionally, the interaction term between the readiness of engagement dimension of feedback literacy and supervisees' levels of anxious attachment (INT_Readiness) was also a significant predictor of supervisees' feelings after receiving corrective feedback ($\beta =. 293$, $p =$ .007, see Table 12 and Interaction Plot in Graph 2), indicating that supervisees' levels of anxious attachment moderated the relationship between the readiness dimension of feedback literacy and supervisees' feelings after receiving corrective feedback. The interaction plot (Graph 1) illustrates the nature of this moderation effect. Supervisees with high attachment anxiety (represented by the red line) generally experience more negative emotions than supervisees with low attachment anxiety (represented by the blue line). However, the interaction effect reveals a nuanced pattern. For supervisees with high attachment anxiety (red line), the relationship between readiness to engage in feedback and negative emotional responses follows a U-shaped pattern. Specifically, for those supervisees with high attachment anxiety, a moderate level (mid 50%) of readiness to engage with feedback is associated with the lowest negative emotions, compared to the lower 25% and upper 25% of readiness. In contrast, for supervisees with low attachment anxiety (blue line), it represents a shallow inverted U-shaped pattern, and the relationship between readiness to engage in feedback and negative emotional responses is relatively stable across different levels of readiness. However, in contrast to the pattern observed for supervisees with high attachment anxiety, those with low attachment anxiety shows slightly highest negative emotions at the moderate level (mid 50%) of readiness to engage with feedback, compared to the lower 25% and upper 25% of readiness.

The other interaction terms were not significant, suggesting no moderation effect for those feedback literacy dimensions (See Table 12). The main effect of supervisees' anxious attachment (Zscore(SASS_Anxiety)) was significant (β = .553, p < .001), indicating that higher levels of anxious attachment were associated with higher negative emotional responses to supervisory feedback (positive relationship). Among the control variables, the results of client focus subscale of supervisory working alliance inventory (β =-. 234, p = .017) was a significant negative predictor of supervisees negative emotional responses, while the rapport subscale was not statistically significant at the .05 level (see Table 12).

Table 12. Coefficients Result for Research Question 2b (Model 4)

Variable	B	SE	β	t	Sig.
(Constant)	31.412	2.852	11.016	0.000	
Zscore(Eliciting)	0.686	1.025	0.092	0.670	0.505
Zscore(Processing)	-1.094	1.183	-0.146	-0.925	0.357
Zscore(Enacting)	-0.773	0.937	-0.103	-0.825	0.412
Zscore(Appreciation)	1.009	0.865	0.135	1.167	0.246
Zscore(Readiness)	0.437	0.794	0.059	0.551	0.583
Zscore(Commitment)	0.915	0.807	0.122	1.133	0.260
Zscore(SASS_Anxiety)	4.132	0.471	0.553	8.779	0**
Elicit*SASS_Anxiety	-1.552	1.162	-0.200	-1.335	0.185
Process*SASS_Anxiety	2.530	1.347	0.330	1.878	0.063
Enact*SASS_Anxiety	-0.984	0.929	-0.128	-1.060	0.292
Appreciation*SASS_Anxiety	-3.054	0.697	-0.422	-4.384	0**
Readiness*SASS_Anxiety	2.441	0.890	0.293	2.744	0.007**

Commitment*SASS_Anxiety	0.883	0.851	0.111	1.037	0.302
SWA_ClientFocus	-1.503	0.620	-0.234	-2.423	0.017*
SWA_Rapport	-0.934	0.707	-0.129	-1.323	0.189

*Note. SWA=*Supervisory Working Alliance. Zscore=Standardized Score (for moderation analysis purposes). $p<0.01**$ $p<0.05*$

Table 13. Multicollinearity Diagnostic Statistics for Model 4

Variable	Tolerance	VIF	Condition Index
(Constant)			1
Zscore(Eliciting)	0.142	7.052	1.6
Zscore(Processing)	0.106	9.399	1.9
Zscore(Enacting)	0.169	5.9	2.5
Zscore(Appreciation)	0.199	5.022	3
Zscore(Readiness)	0.236	4.234	3.8
Zscore(Commitment)	0.229	4.372	4.7
Zscore(SASS_Anxiety)	0.672	1.488	5.7
Elicit*SASS_Anxiety	0.118	8.441	6
Process*SASS_Anxiety	0.086	11.599	7.3
Enact*SASS_Anxiety	0.181	5.512	7.6
Appreciation*SASS_Anxiety	0.288	3.471	7.9
Readiness*SASS_Anxiety	0.234	4.28	9.6
Commitment*SASS_Anxiety	0.233	4.288	11.8
SWA_ClientFocus	0.286	3.495	23.1

SWA_Rapport	0.281	3.557	37.2

Figure 1. Interaction Plot for Attachment Anxiety and Appreciation of Feedback on Supervisees' Negative Emotional Responses

Interaction Plot for SSAS_Anxiety and Appreciation
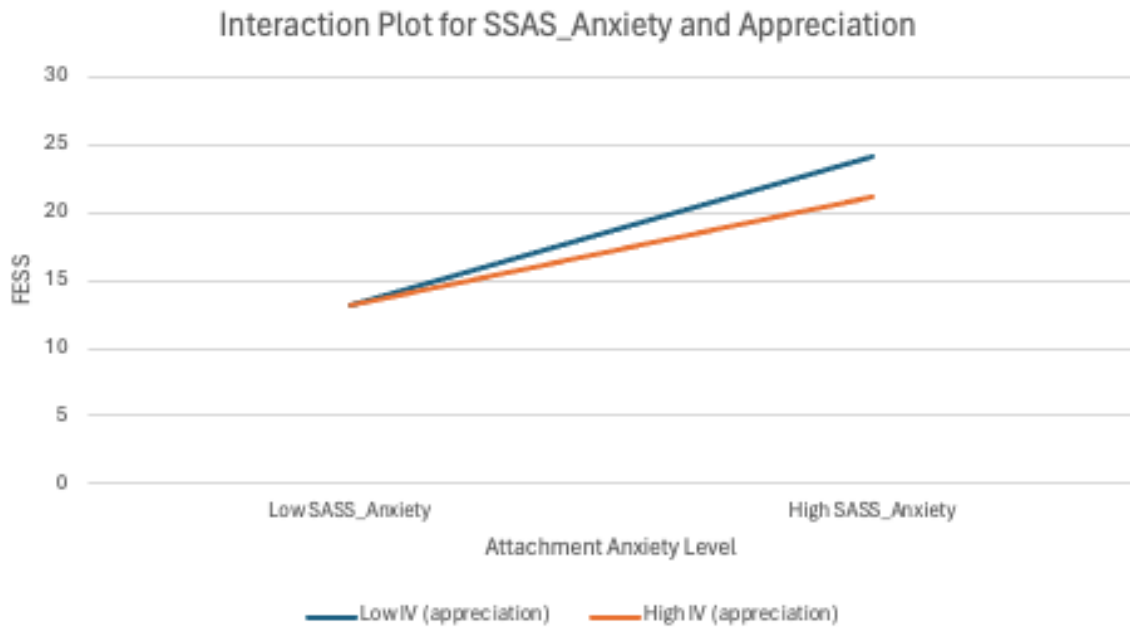
Note. FESS=level of supervisees' negative emotions after receiving feedback, the higher of the FESS, the more negative emotions they experienced.

Figure 2. Interaction Plot for Attachment Anxiety and Readiness of Engagement on Supervisees' Negative Emotional Responses
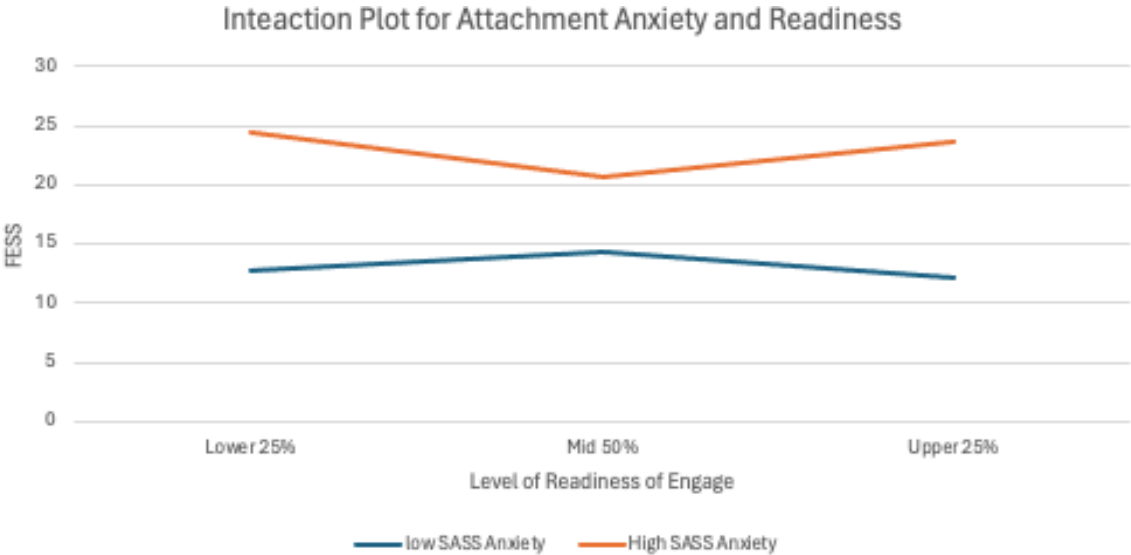
CHAPTER V: DISCUSSION

In this chapter, the results of the data analysis are discussed in relation to existing research. Limitations of the study are acknowledged. Implications for supervisors, counselor educators, and supervisees are outlined based on the findings. Potential future research directions to further understand the feedback process in supervision are also provided.

Preliminary Analyses

Reliability and Factorial Validity of the Modified SSFL

Results of preliminary analyses indicated that the modified SSFL had good internal consistency, with Cronbach's alpha coefficients above 0.9 for five out of six subscales, and 0.877 (still above the generally accepted threshold of 0.7) for the commitment to change subscale. The CFA results demonstrated acceptable model fit (CFI= .95; TLI = .94; RMSEA = .08 (90% CI: .06 - .09); SRMR = .04.). The findings provided the initial support for the reliability and factorial validity of the modified SSFL in examining supervisees' feedback literacy, based on the work of Zhan (2022).

Research Questions 1a and 1b

The results of the multiple regression analysis for Research Question 1a showed that the model was significant and explained a significant proportion of variance in the likelihood of using supervisory corrective feedback. Specifically, the model explained 19% of the variance of the supervisees' likelihood of using feedback. The R^2 value indicated a medium effect size based on the threshold presented by Balkin and Lenz (2021). However, none of the six feedback literacy dimensions emerged as significant predictors of the likelihood of using supervisory corrective feedback in this model. This result is contrary to the initial hypothesis, which anticipated that these dimensions would play a significant role in predicting the likelihood of

using supervisory corrective feedback. The lack of significant findings for these predictors warrants further discussion.

Similarly, the moderation analysis for Research Question 1b suggested that the regression model was significant and explained a significant proportion of variance in supervisees' likelihood of using feedback. Specifically, the model explained 32% of the variance of the supervisees' likelihood of using feedback. The R^2 value indicated a large effect size based on the threshold presented by Balkin and Lenz (2021). However, none of the interaction terms between the six dimensions of feedback literacy and supervisees' levels of anxious attachment were statistically significant, suggesting that there is no evidence supporting the moderating role of anxious attachment in the relationship between the six dimensions of feedback literacy and the likelihood of using supervisory corrective feedback when controlling for supervisory working alliance. However, attachment anxiety emerged as a significant predictor in the model, suggesting there was a significant main effect of it on the supervisees's likelihood of using feedback. After attachment anxiety was added to the model, the rapport subscale of the supervisory working alliance was not significant, suggesting the possibility of a mediating effect.

It's important to note that this study is the first study to bring feedback literacy and examine its relationships with the likelihood of using feedback in clinical supervision. Additionally, as the concept and measure of the likelihood of using feedback has only recently been developed, there are limited studies available for direct comparison of results. Other important considerations in supervision literature, such as the supervisees' developmental stage (Stoltenberg & McNeill, 2011), the supervisor's cultural humility (Cook et al., 2020; Hook et al., 2016; Zhang et al., 2022), and supervisees' nondisclosure (Gibson et al., 2019; Hutman & Ellis,

2020), may also impact the complicated feedback process. Future researchers may consider adding these factors to future feedback studies.

One potential explanation for the nonsignificant results of feedback literacy dimensions in both analyses is the presence of multicollinearity among the predictor variables. Multicollinearity refers to a high degree of linear intercorrelations between predictors, which can inflate the variances of the regression coefficients, and make it difficult to detect the significance in regression analyses (Kim, 2019). In the analysis of Research Questions 1a and 1b, by checking multicollinearity-related statistics (Tables 7 and 9), several variance inflation factor (VIF) values of variables and condition index values of variables were also above the common threshold of 10 (Kim, 2019), indicating the presence of multicollinearity. To address the issues of multicollinearity, future researchers may consider excluding the multicollinear explanatory variables (Kim, 2019), or further using EFA to explore to examine a better structure of modified SSFL (Watkins, 2018). These methods may help mitigate the impact of multicollinearity on the regression results and provide a more accurate presentation of the relationships among the six dimensions of feedback literacy and other feedback variables.

While the sample size was smaller than originally desired based on a priori power analyses, the observed power values, calculated by conducting post hoc power analyses via G*Power (Faul et al., 2009), were high for both the multiple regression (0.820) and moderation analysis (1.000) for research question 1, removing the possibility of Type II error. Similarly, the observed power values for multiple regression and moderation analysis were both 1.00. This suggested the models in Research Question 1a and model in the Research Question 1b, 2a, and 2b indicated the 82.0% (Research Question 1a) and 100% (Research Question 1b, 2a, 2b) chance of detecting significant effects if they existed (Murphy & Myors, 2023). Thus, the nonsignificant

results for the individual feedback literacy dimensions would not be attributed to Type II errors. While multicollinearity may be a concern that could impact significance, feedback literacy was not found to have a direct relationship with the likelihood of supervisees implementing supervisory corrective feedback. It may also be that the supervisory working alliance or anxious attachment may account for the variance that could be caused by feedback literacy.

Notably, the rapport subscale of the supervisory working alliance inventory was a significant predictor in the first model (Research Question 1a), which highlights the importance of relationships and trust in the decision of supervisees to use supervisory feedback. These results align with previous researchers, identifying that supervisees are more likely to use feedback provided by their supervisor when they feel safe and comfortable in the supervisory relationship (Borders et al., 2017; Hoffman et al., 2005; McKibben et al., 2019). A lack of trust or safety in the supervisory relationship may impact supervisees' perceptions of feedback (Hoffman et al., 2005; McKibben et al., 2019) and hinder them from using supervisory feedback. One possibility is that rapport within the supervisory working alliance mediates the relationship between feedback literacy dimensions and supervises utilization of corrective feedback. Past research (e.g., Ertl et al., 2023; Park et al., 2019) suggests that the supervisory working alliance may be one of the main predictors in the feedback process. Additionally, feedback literacy could moderate the relationship between supervisees' perceived supervisory working alliance and their likelihood of using feedback. For example, if supervisees perceive they have good supervisory working alliance with their supervisors, with the experienced trust and safety in this relationship, they may treat supervisors' feedback more seriously, they may elicit the feedback from their supervisor or engage in processing the feedback in a more positive manner - thus, a strong supervisory working alliance with good rapport may result in more positive engagement with

feedback in the six dimensions of feedback literacy to figure out how to put the feedback into action. Thus, for future research, researchers may consider exploring working alliance, feedback literacy, and the likelihood of using feedback as a multidimensional path model rather than with all independent variables having a direct impact on the likelihood of using supervisory feedback.

While the need to explore both indirect and direct relationships is evident, rapport between the supervisor and supervisee is an important component. However, other factors not built into models 1 and 2 could play a role in determining whether the feedback is utilized, and that may also explain the no significance of the six feedback literacy dimensions in both models. It's important to note that in this study, participants rated their likelihood of using feedback highly. This may be due to the developmental characteristics at this stage- sample of this study mainly consisted of supervisees in their practicum or internship, a population that typically exhibits these beginner counselor developmental characteristics, as supervisees highly rely on supervisors' guidance and feedback and often lack self-efficacy and confidence in clinical work. Based on the Integrative Developmental Model (IDM; Stoltenberg & McNeill, 2011), beginning counselors in level 1 often experience anxiety, self-doubt, and are highly self-focused. They also lack counseling self-efficacy and are more prone to self-criticism due to limited clinical experience(Salvador, 2016 & Stoltenberg et al., 2014). When receiving corrective feedback, these developmental characteristics may interact with their feedback literacy, impacting their likelihood of using feedback. Supervisees at this stage may be more sensitive to criticism or may distort corrective feedback as criticism focuses on them, leading to negative feelings and reactions.

Additionally, Goodrich and colleagues (2021) found correlations between supervisees' negative feelings after receiving constructive feedback and the likelihood of using feedback, as

well as between supervisees' cognitive distortions and the likelihood of using feedback. These findings highlight the impact of supervisees' negative feelings and cognitive components on their likelihood of using feedback. However, the models of Research Questions 1a and 1b did not include supervisees' emotional and cognitive reactions after receiving feedback. Based on the common developmental characteristics that beginner counselors/supervisees may have, their higher levels of anxiety and other related negative feelings after receiving feedback (Burkard et al., 2014; Hoffman et al., 2005; Rogers et al., 2020) may interact with their feedback literacy, influencing their likelihood of using feedback. This needs to be further explored in the future. Similarly, due to the high self-focus characteristic of beginner counselors/supervisees (Stoltenberg & McNeill, 2011), they may distort corrective feedback into criticism of themselves (Rogers et al., 2019). These cognitive distortions may also interact with their feedback literacy, impacting their likelihood of using feedback. While factors such as supervisees' cognitive distortions could be considered in future models, the overall models for research questions 1a and 1b explained a large portion of the variance (19% and 32%, respectively). However, this leaves a larger portion of the variance unexplained, indicating that the likelihood of using supervisory corrective feedback may be a more complex process. Future researchers should consider including supervisees' emotional and cognitive reactions to feedback in their models to better understand the intricate nature of feedback utilization in the context of clinical supervision, and examine how feedback literacy fits - or does not fit - within this decision process to use feedback.

Additionally, model 1b showed that supervisees' attachment anxiety was a significant predictor in explaining the variance in the likelihood of using feedback. It is also important to note that while rapport in the supervisory working alliance was significantly related in 1a, it is no

longer statistically significant in the moderation analysis in 1b. The relationship between anxious attachment style and likelihood of using feedback highlights the importance of considering supervisees' attachment styles when examining feedback processes in supervision, which is consistent with previous literature (Goodrich et al., 2021; McKibben & Webber, 2017; McKibben et al., 2019; Rogers et al., 2019). The significant negative relationship between attachment anxiety and the likelihood of using feedback is consistent with previous literature regarding the role of supervisees' insecure attachment in the feedback process. Goodrich and colleagues (2021) found that supervisees' level of attachment anxiety was negatively correlated with their likelihood of using feedback. Moreover, attachment anxiety has been positively correlated with supervisees' difficulties with corrective feedback (Rogers et al., 2019), cognitive distortions (Rogers et al., 2019), and negative emotional reactions (Rogers et al., 2020). Supervisees with higher levels of attachment anxiety may engage in more frequent distorted thinking processes within the supervisory relationship, such as interpreting feedback as a sign of rejection or disapproval (McKibben & Webber, 2017). These cognitive distortions can lead to more negative feelings about feedback and increased negative experiences related to corrective feedback (Rogers et al., 2019). As a result, supervisees with high attachment anxiety may be less likely to use supervisory feedback, regardless of their feedback literacy level. Furthermore, supervisees with anxious attachment styles may have difficulty regulating their emotions and may be more sensitive to perceived negative feedback (Cassidy & Shaver, 2016; Mikulincer & Shaver, 2016; Pascuzzo et al., 2015). This increased emotional reactivity can negatively impact their ability to effectively process and apply feedback, even if they possess the necessary feedback literacy dispositions and skills. In summary, the significant main effect of attachment anxiety on the likelihood of using feedback highlight the importance of attachment in

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complicated feedback process. Future researchers may consider to continually explore the attachment mechanisms in the feedback process and also develop strategies for addressing attachment-related barriers in supervision.

Research Question 2a and 2b

The results of the multiple regression analysis for Research Question 2a showed that the model was significant and explained a significant proportion (38.9%) of variance in the likelihood of using supervisory corrective feedback. The R^2 indicated a large effect size based on the threshold presented by Balkin and Lenz (2021). Among the six dimensions of feedback literacy, only commitment to change was a significant positive predictor of supervisees' negative emotional responses. Other feedback literacy dimensions, such as eliciting, processing, enacting, readiness of engagement, and appreciation of feedback were not significant predictors. In addition to the commitment literacy relationship, the rapport subscale of the supervisory working alliance inventory was a negative significant predictor, indicating a negative relationship with supervisees' negative emotional responses (better supervisory rapport is associated with lower negative emotional responses after receiving feedback).

The moderation analysis for Research Question 2b showed that the regression model was significant and explained a significant proportion (73.9%) of variance in supervisees' negative emotional responses. The R^2 value indicated a large effect size based on the threshold presented by Balkin and Lenz (2021). Two of the interaction terms were statistically significant: anxious attachment with appreciation of feedback, and with readiness of engagement, indicating a moderation effect. The other interaction terms were not significant, suggesting no moderation effect for those feedback dimensions, including the interaction of attachment with commitment. Additionally, in the regression model exploring interaction effects, the direct relationship

between commitment and negative emotions was no longer significant. The main effect of supervisees' anxious attachment was significant, indicating that higher levels of anxious attachment were correlated with higher negative emotional responses to supervisory feedback. Among the control variables, the client focus subscale of the supervisory working alliance inventory was a significant negative predictor of supervisees' negative emotional responses, while the rapport subscale was not statistically significant.

In the initial 2a model, the significant positive relationship between commitment to change and negative emotional responses indicated that supervisees who are more committed to changing their behavior may experience more negative emotions when receiving corrective feedback. This finding may seem counterintuitive, but it could be explained by the possibility that supervisees who are highly committed to change may be also the people who are more invested in the feedback process and supervision, therefore, they may more easily experience negative feelings when receiving corrective feedback (e.g., may feel frustrated by own performance). The idea of commitment to change has not been explored in previous supervision research, more than likely as there is no other supervision measure that captures the concept of commitment to change in the feedback process. Future researchers are encouraged to explore potential factors that may influence the relationship between the commitment to change and negative emotional responses to feedback, such as supervisees' counseling self-efficacy (Kozina et al., 2010; Mullen et al., 2015).

In the results of Research Question 2b, the moderator attachment anxiety exhibits both a main effect and interaction effect with two feedback literacy dimensions on the supervisees' negative feelings. The main effect indicates that attachment anxiety has a direct influence on the negative emotional responses to corrective feedback. This finding aligns with previous research

suggesting that individuals with higher levels of attachment anxiety are more likely to experience negative emotions in response to constructive feedback (Rogers et al., 2021) or perceived threats in interpersonal relationships (Borelli, et al., 2020; Watkins & Riggs, 2012). Attachment anxiety is characterized by a strong desire for approval and avoiding rejection and having a high need of reassurance (Foster et al., 2007; Watkins Jr & Riggs, 2012; Wrape et al., 2017). Supervisees with anxious attachment styles may interpret feedback as signals of rejection or disapproval, even when the feedback is constructive and intended to support their growth (Watkins Jr & Riggs, 2012; Wrape et al., 2017). This heightened sensitivity can make it difficult for these supervisees to regulate their emotional reactions, leading to more intense negative emotions when receiving corrective feedback (Rogers et al., 2019; Rogers et al., 2020). Furthermore, supervisees with higher anxiety attachment may have a higher need of obtaining reassurance from their supervisors (Wrape et al., 2017). When these needs are not met, or when feedback is perceived as criticism, supervisees may experience increased negative emotions, such as anxiety or disappointment (Rogers et al., 2021). This emotional reactivity can occur even when supervisees are ready to engage with the feedback, as their attachment-related fears and expectations may override their cognitive readiness (Borelli, et al., 2020; McKibben & Webber, 2017).

The interaction plot (Graph 1) demonstrates that the relationship between appreciation of feedback and negative emotional responses is moderated by attachment anxiety, with a more pronounced moderating effect at higher levels of attachment anxiety. In other words, supervisees with low appreciation of feedback are more likely to experience greater negative emotional responses as their attachment anxiety increases. Conversely, supervisees who value and appreciate supervisory feedback are less likely to experience a significant increase in negative emotions as their attachment anxiety increases. This finding highlights the importance of

fostering an appreciation for feedback among supervisees, as it can serve as a protective factor to mitigate negative emotional reactions, particularly for those with high attachment anxiety. The result of the moderating effect aligns with previous literature, which highlights that individuals high in attachment anxiety are more sensitive to perceived threats and experience more negative emotions (Borelli et al., 2020; Rogers et al., 2021; Watkins & Riggs, 2012). Additionally, the result also highlights the importance of the appreciation of feedback, which matches with previous feedback literature in supervision that highlights the importance of attitudes and beliefs of feedback (Hulse & Robert, 2014; Hulse-Killacky et al., 2006; Swank & McCarthy, 2015). Supervisees who appreciate feedback are more likely to view it as an opportunity for learning and development, rather than a threat to their self-esteem or a signal of rejection (Linderbaum & Levy, 2010; Watkins Jr & Riggs, 2012).

The moderation effect in Graph 2 reveals a complex relationship between readiness to engage in feedback and negative emotional responses, highlighting the role of anxious attachment. Supervisees with high attachment anxiety (see Graph 2 red line) generally experience more negative emotions, which aligns with previous literature of supervisees' attachment anxiety being associated with greater negative emotions (Rogers et al., 2020). However, the interaction effect reveals a nuanced pattern.

For supervisees with high attachment anxiety, a moderate level of readiness to engage with feedback is associated with the lowest negative emotional responses, suggesting that moderate level of readiness to engage feedback can serve as a buffer. This could be because a moderate level of readiness represents a balanced and flexible mindset towards receiving feedback, where supervisees are neither too defensive nor overly anxious about being rejected by the supervisor. This approach may help supervisees with high attachment anxiety to be open to

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constructive feedback, at the same time, not be too overwhelmed or overly sensitive to the potential threats of the feedback. It could also indicate that supervisees with high attachment anxiety benefit from a structured approach to feedback, where they have enough preparation to feel confident but not so much that it heightens their anxiety or sets unrealistic expectations.

In contrast, supervisees with low attachment anxiety exhibit a different pattern (Graph 2, blue line), where moderate readiness is associated with slightly higher negative emotions. A possible explanation is that supervisees with low attachment anxiety may feel more secure when interacting with supervisors during the feedback process. This moderate level of readiness may reflect a state of ambivalence, where supervisees are willing to engage with the feedback but are also apprehensive about acknowledging their mistakes or areas for improvement. In this state of ambivalence, their attachment system may be activated, potentially leading to increased negative emotional responses (Mikulincer & Shaver, 2005; Mikulincer & Shaver, 2016). Consequently, they may become more vulnerable or sensitive to constructive feedback. Furthermore, the self-perceived nature of readiness highlights the need to consider other factors that may interact with attachment mechanisms during the feedback process, such as emotional regulation abilities (Levy & Johnson, 2019). Future research should explore these complex dynamics and may include additional related factors in the examinations.

Additionally, in the results of Research Question 2b, the significant, direct effect of client focus subscale of the supervisory working alliance inventory suggested the important role of supervisors' focus on clients' needs and goals, can mitigate supervisees' negative emotion reactions to corrective feedback. When a supervisor showed more attention to supervisee's clinical work and were committed to preparing the supervisee to better work with clients, supervisees may have less of a negative emotional reaction to the supervisory feedback and find

it easier to agree with the supervisory feedback. Additionally, the supervisee's attention may also be more focused on the clinical related tasks than self-focused or judgements about themselves (Friedlander, 2015). Interestingly, the rapport subscale of the supervisory working alliance inventory was not a significant predictor of supervisees' negative emotional responses to corrective feedback. This finding suggests that while a strong emotional bond between the supervisor and supervisee is important for the overall effectiveness of supervision (Etrl et al., 2023; Park et al., 2019), it may not be sufficient to mitigate the negative emotional impact of corrective feedback, especially for supervisees with high attachment anxiety.

For the nonsignificant results of some feedback literacy dimensions (all except the commitment to change dimension) in Research Question 2a and the nonsignificant results of all feedback dimensions, one explanation is there is the existence of multicollinearity among predictive variables, similar to the discussion section of the Research Questions 1a and 1b. Several VIF values of several variables were above the common threshold of 5, and the condition index values of several variables were also above the common threshold of 10 (See Tables 11 and 13), indicating the presence of multicollinearity (Kim, 2019). The methods to address multicollinearity are the same as the author discussed in Research Question 1a and 1b.

Another explanation about the nonsignificant results of all feedback literacy dimensions in the model of Research Question 2b was that the supervisory working alliance variables were treated as equal level in explaining negative emotional reactions as the six dimensions of feedback literacy. This was intentional as supervisory working alliance was used as a control variable in the current study. However, the supervisory working alliance is a fundamental common factor that impacts the supervision outcome (Ertl et a;l., 2023; Hutman & Ellis, 2020; Vandament et al., 2022), so it may interact with feedback literacy dimensions and their impacts

on the supervisees' negative emotional responses, or may actually cause or relate directly to feedback literacy itself - with a stronger supervisory working alliance, or even attachment style, leading to how one engages, hears, processes, and commits to corrective feedback provided by a supervisor. For example, a strong supervisory working alliance may create a safe environment that facilitates the supervisee's appreciation of feedback and readiness to engage with it, leading to more positive emotional responses. Additionally, having a secure attachment style may open up an individual to be ready for feedback and even elicit feedback in supervision. Exploring these relationships in path models in the future may be important to uncovering the complexity of the feedback engagement process in supervision.

Limitation

Social Desirability Bias and Self-Awareness

One potential limitation of this study is the reliance on self-report measures, particularly the modified Scale of Student Feedback Literacy (SSFL). When completing self-report measures, participants may be influenced by social desirability bias, leading them to respond in a way that presents themselves in a more favorable light (Larson, 2019). Furthermore, supervisees may lack accurate self-awareness of their feedback literacy dispositions or skills, which could impact the validity of their responses. Future research could address this limitation by including multiple sources of data, such as supervisors' responses or behavioral observations, to assess supervisees' feedback literacy more comprehensively.

The Theoretical Foundation and Structure of Modified SSFL

Another limitation of this study is the use of the modified SSFL, which was originally developed in the higher education field and its fundamental theories and literature were also from higher education field. While Zhan (2022) of the original article proposed a theoretical

framework and conducted confirmatory factor analysis (CFA) to confirm the model fit with the proposed structure, the foundational theories and literature were not developed specifically for the counselor education and supervision context. Thus, while the factor loadings of each item were supported in the current study, as well as reliability of scores within each of the six dimensions of feedback literacy, the proposed six dimensions may not be the actual factor structure of the SSFL. The high correlation of each dimension supports that some of the constructs on each dimension may overlap, resulting in a one factor solution or fewer factors. Conducting an exploratory factor analysis in the future, with a larger sample size, will be important to explore for the SSFL - which may in turn decrease the multicollinearity experienced in this current study. The feedback literacy concept in the clinical supervision and counselor education context may include additional content (e.g., supervisees' emotional awareness and regulation skills) or have a different structure if it is developed based on the feedback theory and literature from counselor education and supervision field.

Retrospective Data Collection Method and Generalization of Feedback Experience

The study's data collection method is asking participants to recall their recent experiences in supervision rather than immediately after they received supervisory feedback, may present some limitations. Retrospective reporting can be subject to memory biases and inaccuracies, particularly when examining emotional responses to specific events (Sato & Kawahara, 2011; Schwarz, 2007). Additionally, the measures used in this study asked participants about their general feedback experiences with their recent or current supervisor, rather than targeting specific feedback instances.

Implications

For Counselor Educators and Supervisors

The findings of this study have implications for counselor educators and supervisors. The modified Scale of Supervisee Feedback Literacy (SSFL) measure is the first feedback measure introduced in the counselor education field that capture various feedback stages and related skills and dispositions, providing a comprehensive view of supervisees' competencies and skills to enable to act on supervisory feedback. Instead of assuming supervisees can effectively utilize feedback, supervisors are encouraged to actively introduce modified SSFL as an education tool at the beginning of the supervisory relationship and facilitate supervisees of using it to understand their feedback literacy level. By introducing the modified SSFL and encouraging supervisees to self-assess their feedback literacy, supervisors and counselor educators can intentionally identify and address areas where supervisees may need more support or guidance. This proactive approach may enable targeted skill development and foster a more active role for supervisees in the feedback process. Furthermore, the measure can be used to monitor supervisees' progress and identify potential barriers in the feedback engagement process, facilitating timely interventions and support. While the SSFL could have important uses for supervisors in understanding supervisee feedback literacy, more testing needs to be conducted on this measure, as noted above.

While the results did not reveal direct relationships between most feedback literacy dimensions and negative emotions or the likelihood of implementing feedback, some implications related to feedback literacy may be important - and should be further explored in future research. Specifically, among the feedback literacy dimensions, supervisors should pay special attention to supervisees' self-perceived readiness to engage with feedback, commitment

to change, and appreciation of feedback, as these components have important roles in the supervisees' feedback engagement process. Regarding the readiness to engage, supervisors are encouraged to have ongoing conversations with supervisees, to reflect and talk about what barriers may hinder their openness of feedback and how supervisors can support them to address those barriers. Regarding commitment to change, supervisors could discuss with supervisees what factors may impact their commitment to act on feedback, and how supervisors can support supervisees to set clear, concrete achievable goals and develop action plans to foster the commitment to change. Regarding appreciation of feedback, supervisors can start to introduce how to adopt a growth mindset to view corrective feedback and how it will benefit supervisees' professional development, model openness to feedback themselves, and also actively ask and understand supervisees' needs and goals, to ensure their feedback matches with supervisees' needs. Finally, based on the current findings at the same time, supervisors also need to make efforts to facilitate a supportive supervision environment, that encourages trust building and also makes supervisees feel safe to have open and honest communication about their concerns and their clinical performance.

Given the significant role of attachment anxiety in the feedback process found in this study, and supported in previous studies (McKibben and Webber, 2017; McKibben et al., 2019; Rogers et al., 2019; Rogers et al., 2020), supervisors and counselors educators should be aware of situations where supervisees' attachment anxiety may be activated during supervision. In such instances, supervisees may experience difficulties in processing or responding to feedback effectively, and more specifically appear to have negative emotional reactions and be less likely to use feedback. This study found that attachment anxiety had a significant main effect on supervisees' likelihood of using feedback and also negative emotional responses to corrective

feedback. Additionally, the interaction effects between attachment anxiety and supervisees' readiness to engage, as well as attachment anxiety and supervisees' appreciation of feedback, significantly influenced supervisees' negative emotional responses. Commitment to change dimension of feedback literacy also positively and significantly impacts supervisees' negative emotional responses. To mitigate supervisees' negative emotional reactions after feedback, supervisors should acknowledge and prepare for potential negative reactions in advance, adjust the pace of the feedback process, and provide a safe space for supervisees to explore their internal processes. Supervisors can employ reflective questioning techniques and offer reassurance to clarify supervisees' potential distorted interpretations of feedback. By adopting a growth-oriented perspective, supervisors can help supervisees understand their current clinical challenges and facilitate their professional development.

For Supervisees

Supervisees are encouraged to assess their feedback literacy using the modified SSFL and collaborate with their supervisors to identify specific skills or dispositions that require intentional development, especially about their dispositions (commitment to change, readiness to engage, appreciation of feedback), which importance was highlighted by this study. By actively bringing the modified SSFL into supervision, supervisees can engage in open discussions with their supervisors, check items in the modified SSFL-so they have specific wordings and needs they can refer to, in order to enhance the deeper engagement of feedback and improve their feedback literacy. Regarding to supervisees' feedback literacies, supervisees are encouraged to reflect their beliefs, attitudes and understanding of constructive supervisory feedback (Hulse & Robert, 2014; Hulse-Killacky et al., 2006; Swank & McCarthy, 2015), and seek for more clarifications from supervisors and also discuss with supervisors of the role of constructive feedback in their growth,

and how supervisors can based on supervisees' unique needs to offer feedback that fit with supervisees' needs. Supervisees can also continually check their readiness to engage with constructive feedback, and collaboratively assess with supervisors what factors can facilitate their readiness and openness of receiving feedback. Additionally, supervisees are also encouraged to consider how they can set realistic goals, and make plans to implement constructive feedback to improve their clinical performance.

Moreover, supervisees should also be mindful of their internal processes and reactions when receiving corrective feedback. It is essential to collaborate with supervisors at the beginning of the supervisory relationship to establish communication methods for expressing reactions and experiences related to supervisory feedback, and what supervisors can support to make supervisees feel more comfortable to share their authentic reactions and thoughts about supervisory feedback. Supervisees can also use tools such as the FESS (Rogers et al., 2020) and the CFASS (Goodrich et al., 2021) when receiving corrective feedback. By using those measures, supervisees can identify and reflect on their specific negative feelings and intensity of feelings, and their tendency of using the feedback, which may facilitate constructive communications of their experiences with supervisory feedback with supervisors.

Supervisees are encouraged to discuss their typical responses to corrective feedback and identify the support they need from supervisors to manage difficult emotions or thoughts that may arise, in the beginning of the supervisory relationship. By proactively addressing these challenges and focusing on key feedback literacy components, such as commitment to change, readiness to engage, and appreciation of feedback, supervisees can develop effective coping strategies and enhance their ability to deeply engage with supervisory feedback.

Future Research

The results of this study provide several potential directions for future researchers. First, researchers may consider conducting a grounded theory study to establish comprehensive feedback literacy theory based on supervisees' experiences in the feedback process, to capture the important skills and dispositions in different feedback stages and specifically in the supervision context. Second, researchers may also think of expanding the sample size and conduct the Exploratory Factor Analysis of modified SSFL in supervisees' population and examine the structure of the modified SSFL. Third, in the future study, researchers may consider including supervisees' attachment anxiety as an independent variable and include considerations of supervisees' developmental stage and perceived feedback validity or quality in the feedback process study. Fourth, researchers may consider diversifying the source of data to study supervisees' experience with corrective feedback, for example, using reflective recordings or journaling after immediately receiving corrective feedback.

Conclusion

This study aimed to examine the relationships between supervisees' six dimensions of feedback literacy, attachment anxiety, and their likelihood of using feedback, and negative emotional responses to corrective supervisory feedback, while controlling for the supervisory working alliance. The modified Scale of Supervisee Feedback Literacy (SSFL) demonstrated good reliability and factorial validity, providing a promising tool for assessing supervisees' feedback literacy in the context of counselor education and supervision. The results highlighted the significant role of attachment anxiety in the supervisees' feedback engagement process, with higher levels of attachment anxiety associated with a lower likelihood of using feedback and more intense negative emotional responses to corrective feedback. Furthermore, the study

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revealed the moderating effects of supervisees' appreciation of feedback and attachment anxiety, and readiness to engage with feedback and attachment anxiety on supervisees' negative emotional responses. Among the feedback literacy dimensions, commitment to change emerged as a significant predictor of negative emotional responses to corrective feedback.

The findings emphasize the importance of considering supervisees' attachment styles and feedback literacy in the feedback process in supervision. Supervisors, supervisees, and counselor educators are encouraged to use modified SSFL as discussion tools, to facilitate conversations enhance awareness of supervisees' feedback literacy, and address barriers to engaging feedback. Supervisors also need to continuously make efforts to facilitate safe, open environment and also provide feedback that fits with supervisees' individual needs, and consider supervisees' attachment styles in their feedback engagement process.

While this study provides valuable insights into the complex dynamics of the feedback process in clinical supervision, future research should address the limitations, such as the reliance on self-report measures and the need for further validation of the modified SSFL in the counselor education and supervision context; and also consider conduct studies to expand modified SSFL or change the models to include other important factors may impact supervisees' responses to feedback.

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APPENDIX A: DEMOGRAPHIC INFORMATION

In this section, you are invited to provide demographic information. This information is important for understanding the diverse backgrounds of our participants. Please be assured that your responses will be kept confidential, and you will not be personally identified in any reports or publications arising from this research.

Q1

Are you currently or recently (within 3 months) enrolled in any of the following programs?

○ CACREP-accredited master's counseling program

○ Non-CACREP-accredited master's counseling program

○ I don't/didn't enroll in any counseling programs

Q2

Are you currently or recently (within 3 months) enrolled in a clinical practicum or clinical internship?

○ No, I am neither currently nor recently enrolled in a clinical practicum or clinical internship

○ I am currently or recently enrolled in the clinical practicum

○ I am currently or recently enrolled in the clinical internship

Q3

In your current or recent (within 3 months) practicum or internship, do/did you receive individual supervision?

○ Yes

○ No

Q4

Do/Did you receive corrective/constructive feedback on your clinical works from one of your supervisors, in your practicum or internship?

○ Yes

○ No

Q5

How old are you?

○ Under 18

○ 18-24 years old

○ 25-34 years old

○ 35-44 years old

○ 45-54 years old

○ 55-64 years old

○ 65+ years old

Q6

What is your gender identity?

○ Cisgender Woman

○ Cisgender Man

○ Transgender Woman

○ Transgender Man

○ Gender Nonbinary

○ Gender Queer/Gender Fluid/Gender Non-conforming

○ Other (please describe below)

Q7

Which of the following best describes your racial and ethnic identity?

○ Black or African American

○ Asian

○ Lantino/Lantina/Latinx

○ Hispanic

○ Native American/Indigenous

○ Native Hawaiian or Pacific Islander

○ Arab American

○ Multiracial

○ Other (please describe below)

Q8

What is your sexual and/or affectional identity?

○ Straight

○ Gay

○ Lesbian

○ Queer

○ Pansexual

○ Bisexual

○ Asexual

○ Others (please describe below)

[   ]

Q9

How would you describe your status/immigration status?

○ United States citizen

○ International students

○ Refugee

○ Prefer not to answer

○ Others (please describe below)

[   ]

Q10

What is your training specialty?

- ○ Clinical Mental Health Counseling
- ○ School Counseling
- ○ Marriage, Couple and Family Counseling
- ○ Rehabilitation Counseling
- ○ College Counseling and Student Affairs
- ○ Addiction Counseling
- ○ Career Counseling

APPENDIX B: THE SCALE OF SUPERVISEE FEEDBACK LITERACY

(MODIFIED)

Take a moment and consider one of your most recent supervisors who provided you constructive/corrective feedback in individual supervision. Please rate each of the following statements that best describes your own perception of what is generally true for you in the supervision context with the specific supervisor you identified.

Constructive/corrective Feedback Definition:

Constructive/corrective feedback aims to help supervisees (you) to identify and bridging the gap between your current and desired clinical performance, and help you recognize areas for improvement to enhance your overall performance.

Eliciting:

I am good at.....

	strongly disagree	mostly disagree	slightly agree	moderately agree	mostly agree	strongly agree
communicating with my supervisor to elicit useful information about expectation of clinical work.	○	○	○	○	○	○
seeking feedback from different sources (e.g., supervisor, peers) to improve my clinical performance/development.	○	○	○	○	○	○
communicating with my supervisor for solving problems I encounter in learning.	○	○	○	○	○	○
accurately interpreting the my supervisor's expectations or standards of my clinical performance.	○	○	○	○	○	○

Processing:

I am good at.....

	strongly disagree	mostly disagree	slightly agree	moderately agree	mostly agree	strongly agree
comprehending my supervisor' feedback.	○	○	○	○	○	○
evaluating the quality of my supervisor's feedback on my work.	○	○	○	○	○	○
extracting key actionable information from my supervisor's feedback.	○	○	○	○	○	○
recognizing the different rationale of supervisory feedback when my supervisor provided feedback on my clinical performance/development.	○	○	○	○	○	○

Enacting:

I am good at...

	strongly disagree	mostly disagree	slightly agree	moderately agree	mostly agree	strongly agree
adjusting my approach or setting new goals for my later clinical works, based on supervisor's feedback	○	○	○	○	○	○
making a feasible plan to translate my supervisor's feedback into action.	○	○	○	○	○	○
identify appropriate timing to implement the supervisory feedback.	○	○	○	○	○	○
monitoring my own progress to see if I can make good use of my supervisor's feedback to improve my learning or clinical performance.	○	○	○	○	○	○

Appreciation of Feedback

I have realized that feedback from my supervisor can...

	strongly disagree	mostly disagree	slightly agree	moderately agree	mostly agree	strongly agree
help me recognize my strengths and weaknesses of my clinical performance/clinical development.	○	○	○	○	○	○
provide me another perspective to look at my clinical performance/development.	○	○	○	○	○	○
enable me to learn effective learning strategies to improve my clinical performance/development.	○	○	○	○	○	○
enhance my self-reflection on how I can comprehensively improve my clinical performance.	○	○	○	○	○	○

Readiness to Engage

I am always ready to ...

	strongly disagree	mostly disagree	slightly agree	moderately agree	mostly agree	strongly agree
open my mind to receive feedback from different sources (e.g., supervisor, peers).	○	○	○	○	○	○
receive constructive feedback from my supervisor.	○	○	○	○	○	○
take the feedback that directly points out my mistakes.	○	○	○	○	○	○
accept the constructive feedback on the quality of my clinical performance.	○	○	○	○	○	○

Commitment to Change:

I am always willing to...

	strongly disagree	mostly disagree	slightly agree	moderately agree	mostly agree	strongly agree
overcome hesitation to make changes according to the supervisory feedback I get.	○	○	○	○	○	○
change my approach in clinical settings on the basis of my supervisor's feedback.	○	○	○	○	○	○
try my best to conquer the difficulties I encounter in the process of incorporating supervisory feedback in my clinical works.	○	○	○	○	○	○
spend spare time on finding additional learning resources to work on areas of growth that my supervisor mentioned.	○	○	○	○	○	○

APPENDIX C: THE SCALE OF STUDENT FEEDBACK LITERACY (ORIGINAL)

Eliciting:

I am good at

- communicating with others to elicit useful information about what is good work.
- seeking feedback from different sources (e.g., teachers, peers or school mentors) to improve my learning.
- communicating with others for solving problems I encounter in learning.
- accurately interpreting the standards of work required by the teachers.

Processing

I am good at

- comprehending others' comments
- judging the quality of others' comments on my work.
- extracting key actionable information from others' comments.
- recognizing different standing points of other people when they give comments on my work.

Enacting:

I am good at

- adjusting or setting goals for my later learning to respond to suggestions.
- making a feasible plan to translate others' suggestions into my action.
- managing time to implement the useful suggestions of others.
- monitoring my own progress to see if I can make good use of others' feedback to improve my learning.

Appreciation of feedback:

I have realized that feedback from other people can

- make me recognize my learning strengths and weaknesses.
- provide me a chance to look at my work from others' eyes.
- enable me to learn effective learning strategies from others.
- enhance my self-reflection on how I can systematically improve my learning.

Readiness to engage

I am always ready to

- open my mind to receive comments from different sources (e.g., teachers, peers, or school mentors).
- receive hypercritical comments from others.
- take the comments that directly point out my mistakes.
- accept the criticism on the quality of my work.

Commitment to change

I am always willing to

- overcome hesitation to make revisions according to the comments I get.
- change my learning strategies on the basis of others' feedback.
- try my best to conquer the difficulties I encounter in the revision process.

spend spare time on finding additional learning resources to finish the suggested revisions.

APPENDIX D: SUPERVISORY WORKING ALLIANCE INVENTORY – TRAINEE

VERSION

For the SAME supervisor

Indicate the frequency with which the behavior described in each of the following items seems characteristic of your work with your supervisor.

Estimate the frequency of occurrence within supervision on a seven-point scale from "almost never" to "almost always".

	almost never	rarely	occasionally	sometimes	often	very often	almost always
1. I feel comfortable working with my supervisor.	○	○	○	○	○	○	○
2. My supervisor welcomes my explanations about the clients' behaviour.	○	○	○	○	○	○	○
3. My supervisor makes the effort to understand me.	○	○	○	○	○	○	○
4. My supervisor encourages me to talk about my work with clients in ways that are comfortable for me.	○	○	○	○	○	○	○
5. My supervisor is tactful when commenting about my performance.	○	○	○	○	○	○	○

Rate your experience

	almost never	rarely	occasionally	sometimes	often	very often	almost always
6. My supervisor encourages me to formulate my own interventions with the client.	○	○	○	○	○	○	○
7. My supervisor helps me talk freely in our sessions.	○	○	○	○	○	○	○
8. My supervisor stays in tune with me during supervisions.	○	○	○	○	○	○	○
9. I understand client behaviour and treatment technique similar to the way my supervisor does.	○	○	○	○	○	○	○
10.I would feel free to mention to my supervisor any troublesome feelings I might have about him/her.	○	○	○	○	○	○	○

Rate your experience

	almost never	rarely	occasionally	sometimes	often	very often	almost always
11. My supervisor treats me like a colleague in our supervisory sessions.	○	○	○	○	○	○	○
12. In supervision, I am more curious than anxious when discussing difficulties with clients.	○	○	○	○	○	○	○
13. In supervision, my supervisor places a high priority on our understanding the clients' perspective.	○	○	○	○	○	○	○
14. My supervisor encourages me to take time to understand what the client is saying and doing.	○	○	○	○	○	○	○
15.My supervisor's style is to carefully and systematically consider the material I bring to supervision.	○	○	○	○	○	○	○

Rate your experience

	almost never	rarely	occasionally	sometimes	often	very often	almost always
16. When correcting my errors with a client, my supervisor offers alternative ways of intervening with that client.	○	○	○	○	○	○	○
17. My supervisor helps me work within a specific treatment plan with my clients.	○	○	○	○	○	○	○
18. My supervisor helps me stay on track during our meetings.	○	○	○	○	○	○	○
19. I work with my supervisor on specific goals in the supervisory session.	○	○	○	○	○	○	○

APPENDIX E: SUPERVISEE ATTACHMENT STRATEGIES SCALE-REJECTION

SUBSCALE

Now we will invite you to reflect on your experience with the SAME supervisor in your most recent practicum or internship, who offers constructive/corrective feedback in the individual supervision.

Please read each statement carefully and respond honestly based on your current/recent experiences with your supervisor.

For each statement, please indicate how much you agree or disagree with it.

	Strongly Disagree	Diagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1. I worry about my supervisor rejecting me.	○	○	○	○	○	○
2. I worry that I don't measure up to my supervisor's expectations.	○	○	○	○	○	○
3. I wish that I could be sure about whether or not my supervisor really likes me.	○	○	○	○	○	○
4. I need a lot of reassurance that my supervisor approves of my work.	○	○	○	○	○	○
5. I worry about displeasing my supervisor.	○	○	○	○	○	○

For each statement, please indicate how much you agree or disagree with it.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
6.I feel bad about myself when my supervisor gives me corrective feedback.	○	○	○	○	○	○
7.Even when my supervisor reassures me that I am doing okay, I have a hard time believing it.	○	○	○	○	○	○
8.My supervisor has reassured me that I am performing well, but I still feel that I will be negatively evaluated.	○	○	○	○	○	○
9.I worry about my supervisor finding out how incompetent I feel.	○	○	○	○	○	○

APPENDIX F: FEELINGS EXPERIENCED IN SUPERVISION SCALE

Recall your RECENT individual supervision experience of receiving corrective feedback from the SAME supervisor, to answer the following question.

After receiving corrective feedback in supervision, please rate the degree to which you experienced each of the following feelings.

	1. I never feel this way	2.	3. I sometimes feel this way	4.	5.	6. I almost always feel this way
Angry	○	○	○	○	○	○
Annoyed	○	○	○	○	○	○
Anxious	○	○	○	○	○	○
Frustrated	○	○	○	○	○	○
Disappointed	○	○	○	○	○	○
Discouraged	○	○	○	○	○	○
Embarrassed	○	○	○	○	○	○
Guilty	○	○	○	○	○	○
Hopeless	○	○	○	○	○	○

APPENDIX G: CORRECTIVE FEEDBACK AND SYNTHESIS IN SUPERVISION

SCALE

With the SAME supervisor, recall your recent experience of receiving corrective feedback from the supervisor in the individual supervision, to answer the following question.

Rate your experience, "1" means "Almost impossible", and "6" means "It is easy for me".

	1.Almost impossible	2.	3.	4.	5.	6.It is easy for me
How easy is it for you to ACCEPT critical feedback from your clinical supervisor to improve your counseling skills?	○	○	○	○	○	○
How easy is it for you to INCORPERATE critical feedback from your clinical supervisor to improve your counseling skills?	○	○	○	○	○	○
How easy is it for you to SEEK OUT critical feedback from your clinical supervisor to improve your counseling skills?	○	○	○	○	○	○
After receiving critical feedback, how easy is it for you to RETURN FOR clinical supervision to improve your counseling skills?	○	○	○	○	○	○

	1. Not very likely	2.	3.Somewhat likely	4.	5.	6.Absolutely will use it
How likely is it that you will APPLY/USE the feedback you receive from your supervision in the future?	○	○	○	○	○	○

APPENDIX H: RECRUITMENT EMAIL TO CACREP LIAISONS OR COUNSELOR

EDUCATION FACULTY

Dear [CACREP Liaisons/Faculty],

I am Yu Pan, a third-year doctoral student in Counseling and Counselor Education at the University of North Carolina at Greensboro, currently conducting my dissertation. I'm conducting my dissertation study to explore how master's level counselors-in-training engage with corrective supervisory feedback.

In this study, **eligibility for participation is restricted to**:

(1) master's level counselors-in-training who are currently or recently (within 3 months) enrolled in practicum or internship,

(2) who have seen clients,

(3) currently receive or recently received (within 3 months) individual supervision,

(4) at least 18 years old.

Your assistance in reaching potential participants would be invaluable. I am seeking your help to forward the below "Email to Potential Participants" to eligible students in your program. This study involves a Qualtrics survey, and participants will have opportunity to win one of the $20 Amazon gift cards.

For any queries or further details, please feel free to contact me at y_pan3@uncg.edu or my dissertation chair, Dr. Kelly Wester, at klwester@uncg.edu. Thank you immensely for your time and support in this academic endeavor.

—------------------------------Below is the Email to Potential Participants--------—---------------

Recruitment Emails to Counselors-in-Training

Dear Counselors-in-Training,

I hope this message finds you well. My name is Yu Pan, a doctoral student in Counseling and Counselor Education at the University of North Carolina at Greensboro. I am conducting a research study for my dissertation, and your participation would be invaluable.

Study Overview:

My research focuses on understanding the current or recent (within 3 months) masters-in-training's experiences of engaging with supervisory constructive feedback. Specifically, I want to examine the dynamics of feedback literacy, the supervisory working alliance, attachment, responses to corrective feedback.

Who Can Participate?

You are eligible to participate if you:

- Are enrolled or recently enrolled (within 3 months) in a **CACREP-accredited counseling master's program.**

- Are currently or recently (within 3 months) enrolled in **clinical practicum** or **internship**, receiving **individual supervision**, and the supervisor also **provide constructive feedback** about your clinical works with clients.

- Have seen clients in practicum or internship.

- At least 18 years old.

Why Participate?

Your insights will contribute significantly to our understanding of the feedback process in counselor training, potentially impacting future training and supervisory practices. Plus,

participants will have the chance to receive one of twenty-four gift cards with the value of $20 Amazon gift cards in a drawing as a token of appreciation for your time and contribution.

How to Participate:

If you meet the above criteria and are interested in participating, please click on the following Qualtrics link to access the survey and detailed consent form:

https://uncg.qualtrics.com/jfe/form/SV_6Fn5WBg0SHo1yGa

The survey should take approximately 20 minutes to complete.

Feel free to forward this email to anyone else you know who may meet the below inclusion criteria of the study!

For any questions or additional information, please feel free to contact me, Yu Pan, at y_pan3@uncg.edu or my dissertation chair, Dr. Kelly Wester, at klwester@uncg.edu

Thank you for considering this opportunity to contribute to important research in our field. Your perspective is invaluable, and I greatly appreciate your time and participation.

Warm regards,

Yu Pan, MA, NCC, LPC-IL

Doctoral Student, UNCG

Call for Counselors-in-Training Research Participants!

About the Study

This research focuses on understanding the current or recent (within 3 months) masters-in-training experiences of engaging with supervisory constructive feedback. It will takes approximately around 20 minutes to finish the Qualtric survey.

Incentive Drawing

Participants will have the opportunity to enter a drawing to win a $ 20 Amazon gift card.

Eligibility

- Are enrolled or recently enrolled (within 3 months) in a CACREP-accredited counseling master's program.
- Are currently or have recently (within 3 months) enrolled in the **clinical practicum** or **internship**, receiving individual supervision, and the supervisor also provides constructive feedback
- Have seen clients
- At least 18 years old.

To Participate:

- Scan the below QR code to participate or click this link: https://qualtricsxmw2qkmcy57.qualtrics.com/jfe/form/SV_8k5CF6AqlxngfdA

Questions?
Contact:
Yu Pan
y_pan3@uncg.edu
Kelly Wester
klwester@uncg.edu

APPENDIX I: RECRUITMENT EMAILS TO COUNSELORS-IN-TRAINING

Dear Counselors-in-Training,

I hope this message finds you well. My name is Yu Pan, a doctoral student in Counseling and Counselor Education at the University of North Carolina at Greensboro. I am conducting a research study for my dissertation, and your participation would be invaluable.

Study Overview:

My research focuses on understanding the current or recent (within 3 months) masters-in-training's experiences of engaging with supervisory constructive feedback. Specifically, I want to examine the dynamics of feedback literacy, the supervisory working alliance, attachment, responses to corrective feedback.

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Thank you for considering this opportunity to contribute to important research in our field. Your perspective is invaluable, and I greatly appreciate your time and participation.

Warm regards,

Yu Pan, MA, NCC, LPC-IL

Doctoral Student, UNCG

Call for Counselors-in-Training Research Participants!

About the Study

This research focuses on understanding the current or recent (within 3 months) masters-in-training experiences of engaging with supervisory constructive feedback. It will takes approximately around 20 minutes to finish the Qualtric survey.

Incentive Drawing

Participants will have the opportunity to enter a drawing to win a $ 20 Amazon gift card.

Eligibility

- Are enrolled or recently enrolled (within 3 months) in a CACREP-accredited counseling master's program.
- Are currently or have recently (within 3 months) enrolled in the **clinical practicum** or **internship**, receiving individual supervision, and the supervisor also provides constructive feedback
- Have seen clients
- At least 18 years old.

To Participate:

- Scan the below QR code to participate or click this link: https://qualtricsxmw2qkmcy57.qualtrics.com/jfe/form/SV_8k5CF6AqlxngfdA

Questions?
Contact:
Yu Pan
y_pan3@uncg.edu
Kelly Wester
klwester@uncg.edu

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

CONSENT FOR PARTICIPATION IN RESEARCH

Protocol Title: Investing Supervisees' Experience with Supervisory Constructive Feedback

Principal Investigator: Yu Pan, y_pan3@uncg.edu, faculty advisor Dr. Kelly Wester, klwester@uncg.edu

Key Information: You are being asked to volunteer for research. Below is some key information to keep in mind when thinking about why you may or may not want to be in the research. Additional details will follow.

Introduction:

The purpose of this form is to provide you with information that may affect your decision as to whether to participate in this research study. The person performing the research will answer any of your questions. Read the information below and ask any questions you might have before deciding whether to take part. If you decide to be involved in this study, this form will be used to record your consent. You must be at least 18 years of age to participate.

Purpose of the Study

You have been asked to participate in a research study about your experiences as a supervisee engaging with feedback from your supervisor. The purpose of this study is to examine your experience with constructive feedback from your supervisor, your feelings about supervisory feedback, and the likelihood of using feedback.

Why am I being asked to take part in this research study?

You are being asked to take part in this study because you are currently or recently in supervision, and have received feedback from a supervisor. Your participation in this study is completely voluntary. You may refuse to participate or stop your participation in this research study at any time without penalty or loss of benefits.

How many people will take part in this study and how long will it take?

This study will take approximately 20 minutes to complete an online survey. There will be a maximum of 300 other supervisees who may participate in this research study. Students from multiple CACREP-accredited programs across the United States will be sent the recruitment email and consent form, asking if they would like to participate.

What will you be asked to do?

    • If you agree to participate in this study, you will be asked to: Respond to questions in this online survey to provide information related to your recent supervision experience, as well as provide demographic information.

What are the risks involved in this study?

    The risks involved with participation in this study are low, and no more than risks encountered in daily life. Although highly unlikely, a potential risk is a breach of confidentiality. We have implemented secure data handling practices (e.g., storing all data in UNCG-approved secure locations) to ensure the data safety and anonymity, and we are committed to minimizing any potential risks.

What are the possible benefits of this study?

You will receive no direct benefit from participating in this study; however, reflecting on your own experiences during the survey might offer personal insights into your engagement with supervisory feedback. Additionally, your participation may contribute to a better understanding of supervisees' experiences with supervisory corrective feedback and benefit future supervisees and supervisors.

Do you have to participate?

No, your participation is voluntary. You may decide not to participate at all or, if you start the study, you may withdraw at any time. Withdrawal or refusing to participate will not affect your relationship with the University of North Carolina at Greensboro, or your University or site supervisor, in any way. You may choose not to be in the study or to stop being in the study before it is over at any time. Neither your academic status or grades will be affected by your participation decision. You may choose not to answer a question or question(s) for any reason. If you would like to participate, carefully review the informed consent details provided in this document. To give your consent and begin the survey, at the end of this page, simply click to the next page and begin answering questions.

Will participating in the study cost you anything?

No. There are no direct costs for taking part in this research study.

Will I be paid for taking part in this research?

In appreciation for your time and effort, you will have the opportunity to enter a drawing for a chance to get $20 Amazon gift cards upon completing the survey. The draw will occur after the survey has closed, and winners will be contacted via email to receive their electronic gift card. You can enter the drawing after you have completed the study survey, by going to the

separate website at the end of the survey to enter your email. If you are selected, your email will be used to contact you to provide the gift card. Your email is in a separate survey and will in no way be connected to your responses.

How will my information be protected?

We will do everything possible to make sure that your information is kept confidential, but absolute confidentiality cannot be guaranteed. All information obtained in this study will be maintained confidentially unless disclosure is required by law. We are committed to maintaining the confidentiality of your data through the following measures: no personal identifying information will be collected in relation to the responses; the prize draw will be conducted in a separate Qualtrics survey to ensure that participants' survey responses remain anonymous and separate from their entry into the draw; all electronic data, including survey responses, will be stored on a secure, password-protected server with access limited to the researchers; emails containing sensitive participant information will be managed and stored in UNCG-approved data storage locations as outlined in the UNCG Data Classification Policy.

Absolute confidentiality of data provided through the Internet cannot be guaranteed due to the limited protections of Internet access. Please be sure to close your browser when finished so no one will be able to see what you have been doing.

If you were harmed while participating in the study, who would pay for the necessary medical care?

In the event that you suffer a research-related injury, your medical expenses will be your responsibility or that of your third-party payer, although you are not precluded from seeking to

collect compensation for injury related to malpractice, fault, or blame on the part of those involved in the research.

Could my information be used for future research without asking for my permission?

Yes. All data will be deidentified and will not include any identifiers (e.g., name, date of birth, etc.), thus, it is possible that the data collected for this study may be used for future research studies or distributed to another investigator for future research studies without your consent.

Additional Information and Details

Whom to contact with questions about the study?

Prior to, during or after your participation you can contact the researcher Yu Pan via email y_pan3@uncg.edu or faculty advisor Dr. Kelly Wester via klwester@uncg.edu, for any questions or concerns.

Whom to contact with questions concerning your rights as a research participant? Prior to, during or after your participation you can contact the Office of Research Integrity at UNCG at 855-251-2351 or ori@uncg.edu to:

   • Discuss problems, concerns, and questions, including questions about your rights as a person in a research study

   • Obtain information

   • Offer input.

The Office of Research Integrity at UNCG is not affiliated with any specific research study. You can contact them anonymously if you wish.

You are welcome to take a screenshot or save this webpage for your own records of the informed consent information.

You have been informed about this study's purpose, procedures, possible benefits, and risks, and you have received a copy of this form. You have been given the opportunity to ask questions before you sign, and you have been told that you can ask other questions at any time. You voluntarily agree to participate in this study. You agree to allow the researchers to use and share your information as described in this form. By going to the next page, and responding to questions on the online survey, you are agreeing to participate in the study. By participating in the study you are not waiving any of your legal rights.

If you want to volunteer to be in this research & give the consent, please continue to the next page to respond to the questions.