Relationship Fit:

Fitness Clients' Experiences of Self-Expansion

by Working with a Certified Personal Trainer

by

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ABSTRACT

Personal training is a growing industry as individuals across the U.S. face increasing levels of physical and psychological health issues. Hiring a certified personal trainer (CPT) presents an opportunity to not only become healthier, but also to grow one's knowledge and abilities; researchers refer to this process as self-expansion. This research sought to specify a path model of the self-expansion process clients experience while training with their CPT. Secondly, this research described clients' self-reported disclosure patterns with their CPT. Using Amazon's Mechanical Turk and ResearchMatch, the study sampled $N = 392$ U.S. residents who reported training with a CPT. Results from the path analysis indicated poor global fit; however, local fit supported several statistically significant paths. Clients' level of internal motivation was positively associated with their self-disclosure, self-expansion, and self-pruning. Clients' self-disclosure was positively associated with perceived closeness with their CPT. Contrary to prediction, clients' perceived closeness was negatively associated with perceived support from their CPT. However, clients' perceived closeness and perceived levels of support were both positively associated with their reported levels of self-expansion. Regarding clients' disclosures, results indicated that clients primarily discuss physical training, diet and nutrition, and health concerns. Thematic analysis of self-reported disclosure examples revealed discussion topics including body dysmorphia, loss and grief, mental health, personal relationships, physical health, professionalism, support seeking, trainer sharing, and trust. Theoretical implications for the self-expansion model include support for additional variables in the self-expansion process, including motivation, self-disclosure, perceived support, and self-pruning. Additionally, practical

recommendations for CPTs include an awareness of the type of relationship that clients may desire, as closeness may inhibit perceptions of support with training. Further, CPTs should be aware of the disclosures they may encounter, as clients may share intimate information and seek social support. As such, training programs should include sections on active listening and empathy and require CPTs to be knowledgeable of community resources in the event of a disclosure that presents a serious health risk to the client. Additional research is necessary, particularly to investigate closeness in the self-expansion process, as it did not function as expected within service and professional relationships.

DEDICATION

This dissertation is dedicated to my family who have always supported my academic pursuits.

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iv

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

Being healthy is more than just a physical manifestation, such that physical health, mental health, and social health influence the overall well-being of an individual (World Health Organization, 2020), commonly referred to as the biopsychosocial model (BPS; Engel, 1977, 1980). Physical health is thought to be the product of living a healthy physical lifestyle, including engaging in sufficient exercise, proper nutrition, adequate rest, and limiting unhealthy behaviors (Head to Health, 2019). Mental health primarily concerns an individual's psychological and emotional well-being (Centers for Disease Control [CDC], 2020). Finally, social health is understood through humans' fundamental need to belong (Baumeister & Leary, 1995), or their innate drive to form and maintain close, high-quality relationships with others such as romantic partners and close friends. Health encompasses these three intrinsically woven domains, such that the absence of one is likely to cause overall well-being to be significantly impacted (Engel, 1980; Farrell & Stanton, 2019), but a single component may help improve the others.

Expanding upon the BPS model (Bodenmann & Randall, 2013), current research has begun to examine how aspects of our biology (physical health), psychology (mental health), and the social environment interact to yield well-being. Indeed, social relationships are positively associated with one's health, as having socially supportive networks is beneficial in promoting a healthy physical lifestyle (Estabrooks et al., 2004; Sbarra & Coan, 2018), as well as promoting mental health outcomes including improved self-esteem and lower levels of depression and anxiety (Smith & Weis, 2019; Thoits, 2011). Thus, close personal relationships can enhance the other components of health.

Therefore, individuals must act in ways beneficial to their overall health and growth by establishing close, supportive relationships. One such mechanism that explains how close relationships can impact overall growth is self-expansion.

Self-Expansion

Defined by Aron and Aron (1996), self-expansion is commonly referred to as a fundamental motivation process that describes individuals' motivation to grow, improve, and develop their capabilities through closeness with others and engaging in joint activities. Self-expansion has roots in several theories related to the study of social and personal relationships, including attachment theory (Ainsworth, 1979; Bowlby, 1969/1982) and interdependence theory (Kelley & Thibaut, 1978). A securely attached individual is more inclined to and has an easier time establishing and maintaining close relationships with others compared to insecurely attached individuals (Hazan & Shaver, 1987). Similarly, relational interdependence concerns the level of closeness and mutual influence that exists within a dyad (Kelley & Thibaut, 1978). As such, the self-expansion model situates closeness with others as the primary way that self-expansion occurs (Aron et al., 2013).

Referred to as the inclusion of other in the self (Aron & Aron 1996), perceived closeness is thought to be a function of the breadth and depth of self-disclosure between dyad members, such as friends and romantic partners (Sprecher, 2020). By sharing information and establishing close, interdependent relationships with others, individuals gain access to their partner's resources and perspectives that may help improve their lives (Aron et al., 2013). Individuals may also engage in *directed* self-expansion to seek

opportunities and relationships to expand their resources, perspectives, and identities with others that embody aspects of their ideal self (Zhou et al., in review).

Interactional partners may also experience self-expansion by engaging in novel activities together (Aron et al., 2013). Partners may draw on one another's resources and abilities to complete tasks, often resulting in increased relational quality and commitment (Aron et al., 2000). Though, seeking growth and development opportunities includes an element of risk (Jakubiak & Tomlinson, 2020). Thus, within relational contexts, having a secure base of support is beneficial for exploration and growth, likely resulting in goal achievement.

Prior studies have yielded insights into how motivation and self-expansion can facilitate cognitive growth and development outside of romantic relationships, leading researchers to investigate other domains with interdependent dyads. As such, the goal of the present study is to examine the primary variables of self-expansion within a personal fitness context between fitness clients and certified personal trainers (CPTs).

Personal Training Context

There are approximately 71.5 million fitness consumers in the U.S. and an estimated 340,000 CPTs (Read, 2020b). Individuals attempting to improve their physical abilities and transform their physical health may choose to hire trained professionals to guide and promote their physical development. Through self-disclosure (Weidner & Henning, 2002) and support (McAuley & Courneya, 1993; Pettitt, 2013), clients and CPTs likely form strong, interdependent relationships (Jowett & Nezlek, 2011). As such, CPTs may share their knowledge and skills to help facilitate their clients' self-expansion experiences.

Grounded in the self-expansion model (Aron & Aron, 1986), this study seeks to investigate self-expansion in a nonromantic, relational context with fitness clients and CPTs. The primary goal of the study is to examine whether the self-expansion model proposed by Aron and Aron (1986) can be applied to self-expansion experiences for fitness clients based on their relationships with their CPT. The study will explore both the internally- and externally-driven motivations (Deci & Ryan, 2008; Young & Burke, 2017) of why individuals may choose to hire a CPT, which may serve as predictors of self-disclosure and self-expansion.

Research also points to additional variables, such as self-disclosure (Sprecher, 2020) and perceived support (Feeney & Collins, 2015; Jakubiak & Tomlinson, 2020), that may influence the experience of self-expansion. In particular, self-disclosure helps individuals establish and maintain close relationships (Sprecher, 2020). Research has shown that when individuals self-disclose, perceptions of another's active listening ability, such as paraphrasing and asking appropriate questions, is strongly associated with perceptions of closeness (Topornycky & Golparian, 2016; Weger et al., 2014). Further, given that self-expansion attempts can be risky (Jakubiak & Tomlinson, 2020) and that individuals feel comfortable exploring and expanding when they have a secure base (Bowlby, 1969/1982), perceived support is recommended to help facilitate growth and development (Feeney & Thrush, 2010). For example, clients may disclose personal health information and anxieties about exercising to their CPT that they have not shared with many others. It is likely that the clients' perception of their CPTs active listening will help facilitate their comfortability sharing personal information as well as establish a closer bond for future disclosures, particularly if the CPT responds in a supportive

4

manner. Therefore, this study will include the clients' self-disclosure to their CPT as a predictor of their level of perceived closeness with and perceived support from their CPT. Active listening is also included as a moderator of the association between self-disclosure and perceived closeness. Additionally, clients' perception of support from their CPT is included as a mediating variable between clients' level of perceived closeness and their experiences of self-expansion.

As research within the client-CPT relationship is limited, the current study's other goal is to examine the types of disclosures that clients discuss with their CPT. Through frequent interactions (Ellgen, 2019) and physical touch (Stonehouse, 2017) during training sessions, clients are likely to form a close bond with their CPT (Melton et al., 2008; Weidner & Henning, 2002). Given that more intimate disclosures typically occur in close relationships (Altman & Taylor, 1973), and that CPTs may be perceived as "natural helpers" (Beebe et al., 2018; Roberts-Dobie et al., 2018), it is likely that clients will discuss personal and intimate topics aside from fitness with their CPT. Thus, the study considers the types and dynamics of clients' disclosures.

From a theoretical perspective, the current study attempts to extend previous research by bringing several recently proposed variables into one full model in a nonromantic relational context with fitness clients' self-expansion experiences. From a practical perspective, this study may lend evidence to the importance of clients and CPTs establishing a close bond, which may be facilitated by CPTs actively listening to their clients' disclosures and providing support beyond exercise programming and safety.

CHAPTER 2

LITERATURE REVIEW

Biopsychosocial Model

The biopsychosocial (BPS) model represents the interaction between biology, psychological functioning, and social relationships on an individual's overall health and development (Engel, 1977, 1980). The social component is particularly salient in impacting physical (Moak & Agrawal, 2010) and psychological (Bodenmann & Randall, 2013) health. Particularly within the fitness client-CPT relationship, physical activity is associated with physical, psychological, and relational processes (Weyerer & Kupfer, 1994). Thus, this section first examines how the BPS model's social component may influence overall health outcomes and then describes the importance of physical activity, focusing on the socially supportive nature of CPTs.

Social Component

The BPS model's social component is commonly referred to as the availability of socially supportive networks (Bodenmann & Randall, 2013). Social support is typically received from close others, such as romantic partners, family, and friends. These supportive figures can help an individual cope during times of stress (Uchino et al., 2011), but support is also beneficial in helping individuals pursue their goals and grow (Briskin et al., 2017). As such, a lack of social support is associated with negative physical (Barth et al., 2010) and psychological (Wang et al., 2018) health outcomes, while perceiving a strong socially supportive network is associated with positive health outcomes (Slatcher & Selcuk, 2017).

Negative health outcomes. Farrell and Stanton (2019) claim that social relationships and well-being are a public health issue. Specifically, how individuals process the conflict and stress within relationships may result in negative psychological and behavioral changes (Farrell & Stanton, 2019), such as psychiatric disorders (Bodenmann & Randall, 2013) and substance use (Rodriguez et al., 2014). The result of these changes includes an increased risk of unhealthy lifestyle behaviors, morbidity, and mortality (CDC, 2020). Further, individuals are likely to experience a host of adverse health outcomes, including cardiovascular disease, cancer, and early mortality when encountering negative relational experiences such as low social support, loneliness, and social isolation (Farrell & Stanton, 2019; Smith & Weis, 2019). Thus, socially supportive networks are necessary to combat potential adverse health outcomes and achieve positive health outcomes.

Positive health outcomes. Social support is traditionally understood as engaging in behaviors that assist an individual experiencing hardship (Landerman et al., 1989). Supportive others may show care and concern for the individual, provide them with information that may help the situation, or actively help them accomplish a task (Freeman et al., 2011). While support during stressful situations is essential for health outcomes (Uchino et al., 2011), the perception of support during positive experiences is also beneficial intra- and interpersonally (Gable et al., 2004).

Positive relational behaviors such as actively sharing positive experiences, expressing support, affection, and optimism, and engaging in self-disclosure are associated with beneficial physical health outcomes and higher relational quality (Gable et al., 2006; Gable et al., 2004; Smith & Weis, 2019). Experiencing positive emotions can

7

trigger an "upward spiral" if the emotions are linked with social connections (Uchino & Eisenberger, 2019). As such, sharing positive moments or experiences with close others is positively associated with improved psychological health outcomes, such as well-being and positive affect (Gable et al., 2004). Connections with close others can also help facilitate growth and development through supportive behaviors (Briskin et al., 2017). Research on social support indicates that supportive others can provide individuals with resources to pursue their goals (Cohen et al., 2000; Jakubiak & Feeney, 2016) and increase their goal attainment (Brunstein et al., 1996). Further, the perception of social support availability when pursuing health and fitness goals is known to facilitate goal pursuit (Briskin et al., 2017). Thus, engaging in physical activity within a close, supportive relationship, similar to the client-CPT relationship, likely provides an opportunity for growth and overall health improvements.

Physical Health

Physical activity is an essential aspect of a healthy lifestyle and longevity (Buchman et al., 2012). The CDC (2020) recommends engaging in at least 150 minutes of physical activity weekly to maintain a healthy weight and reduce the risk of adverse health outcomes. However, over 80% of Americans do not actively meet the recommended physical activity guidelines (Health and Human Services [HHS], 2017). By 2030, it is estimated that more than half of Americans will be considered obese (HHS, 2017). Higher obesity rates, combined with a lack of physical activity, increase the risk of heart disease, diabetes, and several types of cancer (CDC, 2020). Engaging in physical activity regularly is one way to reduce the incidence of obesity and its associated negative health outcomes (CDC, 2020).

Given the high percentage of Americans that are not currently meeting the weekly recommended physical activity guidelines (HHS, 2017), choosing to begin an exercise regime can be perceived as an uncertain, stressful, and painful venture (Waryasz et al., 2016; Weidner & Henning, 2002). Individuals may not know what exercises are advantageous for their particular goals, may feel insecure or anxious as they begin exercising, and may also be uncertain about performing specific exercises safely, often resulting in injuries (Waryasz et al., 2016). Thus, many individuals have chosen to seek assistance from a CPT (Waryasz et al., 2016; Weidner & Henning, 2002).

Certified personal trainers are trained in exercise physiology, programming, and safety to help clients achieve their fitness and health goals (Craig & Eickhoff-Shemek, 2009; Waryasz et al., 2016). Further, CPTs learn the importance of using effective communication skills such as active listening to build strong interdependent relationships with their clients (Estabrooks et al., 2004; Melton et al., 2008). CPTs may act in a supportive manner to reduce their clients' uncertainty and anxiety about exercise (Weidner & Henning, 2002). As such, clients may rely heavily on their CPT for guidance and support. Research suggests that hiring a CPT is beneficial for clients' overall physical health outcomes, such as improved attitudes about exercise (McClaran, 2003), exercise adherence (Estabrooks et al., 2004), reduced risk of injury (Waryasz et al., 2016), and increased strength (Mazzetti et al., 2000).

In summary, social relationships (Farrell & Stanton, 2019), psychological functioning (Uchino & Eisenberger, 2019), and physical activity (Weyerer & Kupfer, 1994) are vital to individuals' overall health (Engel, 1977, 1980; Smith & Weis, 2019). Within interdependent relationships, such as the client-CPT relationship (Jowett &

Nezlek, 2011), partners' thoughts, feelings, and behaviors influence one another in numerous but important ways (Holmes, 2002). Therefore, the interdependent relationship between a client and CPT may function as an opportunity for clients to experience self-expansion (Aron & Aron, 1986; Aron & Aron, 1996).

Self-Expansion Model

Self-expansion has been defined as an individual's inherent motivation to improve their self-efficacy by engaging in close relationships and novel activities (Aron & Aron, 1996; Aron & Aron, 1986). Self-expansion is thought to have its roots in attachment (Ainsworth, 1979; Bowlby, 1969/1982) and interdependence (Kelley & Thibaut, 1978) theory, given that relational security is an important component of exploration (Jakubiak & Tomlinson, 2020) and that interdependent relationships offer an opportunity for shared resources (Aron et al., 2013). As such, the following section first presents the theoretical underpinnings of the self-expansion model, followed by key definitions and tenets related to the understanding of self-expansion.

Theoretical Underpinnings

Attachment theory. Attachment theory examines the critical role that caregivers play in a child's life (Ainsworth, 1979; Bowlby, 1969/1982). As humans have a fundamental need to belong (Baumeister & Leary, 1995), caregivers can provide children with a strong bond, a secure base of support, help them during stressful situations, and provide them the ability to grow or expand in multiple areas of life (Ainsworth, 1979; Bowlby, 1969/1982). Based on the level of perceived safety and security the primary caregiver can afford a child (Ainsworth, 1979; Collins & Allard, 2001), children can establish either a secure or insecure attachment style.

10

A secure attachment style is defined as a child feeling assured in their relationships with their primary caregivers (Levy et al., 2011). Children with a secure attachment style feel comfortable exploring their surroundings, interacting with strangers, and find comfort in returning to the caregiver for support, particularly during stressful situations. Caregivers are perceived as sources of safety and security based on their responsiveness and receptivity to the child's needs, helping them develop a secure attachment. Further, the strong bond children have with their caregivers can extend to other relationships (Hazan & Shaver, 1987).

Insecure attachment includes two types: anxious and avoidant. An anxious attachment is defined as feeling uncertainty about the relationship (Levy et al., 2011). The anxious attachment style manifests when caregivers are unpredictable in their responsiveness to the child's needs (Levy et al., 2011). As such, anxiously attached children get very nervous when their caregiver leaves and are uncertain how the caregiver will respond to them when they return. Children tend to crave and seek attention from their caregivers. However, if the child does not receive it, they will likely act out emotionally to try to get the attention they desire (Shaver & Mikulincer, 2007).

An avoidant attachment is defined as feeling emotionally distant from or not interested in establishing close relationships (Levy et al., 2011). The avoidant attachment style is likely to occur when caregivers are unresponsive to a child's needs (Levy et al., 2011), but can also occur due to caregivers physically abusing the child (Finzi et al., 2000). Avoidantly attached children perceive a weaker bond with their caregivers and do not perceive them as reliable sources of safety and security (Ainsworth et al., 2015).

Avoidantly attached children likely ignore their caregivers upon return and do not display affectionate behaviors if they show them attention (Ainsworth, 1979).

The attachment styles established in childhood with primary caregivers extend into adulthood (Feeney & Collins, 2001), impacting individuals' relational dynamics (Feeney & Noller, 1990). In adult relationships, securely attached individuals can regulate their emotions well (Shaver & Mikulincer, 2007) and are more comfortable and skilled in interacting with others (Guerrero & Jones, 2005). Therefore, these individuals have an easier time establishing relationships and having higher trust, interdependence, and satisfaction with partners (Simpson, 1990). Regarding self-expansion, securely attached individuals generally have a favorable view of themselves and others, such that they have a strong sense of interdependence in relationships and realistic expectations for how relationships likely unfold (Kumashiro & Arriaga, 2020). Consequently, securely attached clients likely feel comfortable gaining resources from a close relationship with their CPT for self-expansion (Aron & Aron, 2006).

Anxiously and avoidantly attached individuals face more challenges with establishing and maintaining close relationships than securely attached individuals (Simpson, 1990). Anxiously attached individuals have a favorable view of others but a negative view of self; they tend to seek approval and close bonds but fear rejection, believing their closeness attempts will push others away (Hazan & Shaver, 1987; Marks et al., 2016). These individuals are likely to experience relational dependence (Joel et al., 2011), loneliness (Akdoğan, 2017), and engage in reassurance seeking behaviors (Shaver et al., 2005). Therefore, regarding self-expansion, anxiously attached clients are likely motivated to develop a close relationship with their CPT but may need extra reassurance.

A close relationship with their CPT may provide the anxiously attached client security and support, but it is recommended that CPTs engage in security enhancement behaviors (Kumashiro & Arriaga, 2020), such as confidence building, complimenting, and encouragement.

Avoidantly attached individuals have a negative view of others, and a favorable view of self, such that they strive to remain independent/autonomous and are hesitant to create intimate relationships due to a lack of trust in others (Hazan & Shaver, 1987; Marks et al., 2016). These individuals also experience a host of adverse social and cognitive outcomes, including preferring short-term over long-term relationships (Schachner & Shaver, 2004), a lack of relational closeness (Brennan et al., 1998), and distrust of others (Mikulincer & Shaver, 2019). Accordingly, avoidantly attached individuals may find other means of self-expansion than closeness with others (Aron & Aron, 2006). However, avoidantly attached individuals may also work toward relational security with the help of a partner. For example, CPTs may incorporate positive dependence behaviors (Kumashiro & Arriaga, 2020), such as avoiding demanding requests, explaining why some requests are reasonable, and engaging in activities that clients perceive as enjoyable.

Given that attachment style impacts the likelihood and comfortability of seeking and developing close relationships with others (Kumashiro & Arriaga, 2020), controlling for clients' attachment style is necessary. Securely attached individuals are likely to experience self-expansion easier than insecurely attached individuals because they feel comfortable establishing new relationships. Though attachment style may be altered in adulthood through feelings of connection with romantic partners and emotionally close

13

others (Farinelli & Guerrero, 2011; Hazan & Shaver, 1987; Kumashiro & Arriaga, 2020), CPTs training does not consist of helping individuals improve their experiences of insecure attachment. Instead, CPTs are likely aware that some clients may feel more comfortable training with them than others and that relational dynamics may also vary. The relationship is likely further influenced by interdependence theory.

Interdependence theory. According to interdependence theory (Kelley & Thibaut, 1978), there is a mutual influence between both members of a dyad. Each member can positively or negatively impact the goals and outcomes of the other. The theory specifies four principles that affect the degree of influence: structure, transformation, interaction, and adaptation.

First, the principle of structure concerns the particular context or situation that the individuals are in, such that the situation will afford what actions are possible (Kelley & Thibaut, 1978). Each dyad member has a level of control over their outcomes, their partner's outcomes, and the dyad's outcomes. For example, a client determines how much effort to put into their training, provides monetary compensation to the CPT, and can impact the dyad's relational quality.

The level of dependence consists of how reliant each dyad member is on the other (Kelley & Thibaut, 1978). Being more dependent on another individual places that person in a less powerful position. For example, clients likely feel reliant on their CPT to achieve their goals because the CPT has the knowledge the client needs to succeed. Depending on this dependence level, members can choose how they will attempt to influence one another, such as engaging in cooperation or conflict. Finally, the factors mentioned above are also subject to temporal and information availability constraints.

14

Temporal restraints include whether the interaction will be short- or long-term, while information availability refers to how much is known by each member. For example, the training that occurs is limited by both members' availability, while information about the client's fitness goals can influence the type of training the CPT recommends.

Next, transformation (Kelley & Thibaut, 1978) concerns how the individuals perceive the situation's potential rewards and costs of their and their partner's actions. According to social exchange theory (Thibaut & Kelley, 1959), individuals want to maximize their rewards and minimize their costs. In the CPT-client relationship, rewards are maximized, and costs are minimized, from the clients' perspective by getting high-quality training for a low price. In interpersonal relationships, interdependence theory provides four distinct types of costs and rewards possible within relationships: emotional, social, instrumental, and opportunity (Kelley & Thibaut, 1978).

Emotional rewards are the positive and negative feelings associated with relationships, such as clients feeling closeness with and trust in their CPT. Social rewards and costs deal with the individual's social image and the interactions outside of the relationship. For example, the CPT may be very knowledgeable and know important people, thus increasing the client's social capital by association. Instrumental rewards and costs concern the availability of supportive behaviors to accomplish tasks, such as the CPT actively helping the client perform an exercise. Finally, opportunity rewards and costs concern being able to experience new situations that would not have been possible if it were not for the other partner or sacrificing for the relationship. For example, clients may achieve new personal records on specific exercises with their CPT's guidance.

Third, the interaction principle concerns the relationship's overall positive or negative outcome (Kelley & Thibaut, 1978). Evaluation occurs by considering one's comparison level and comparison level for alternatives. The comparison level examines what one believes or thinks they realistically deserve and expects from a relationship. For example, a client likely expects a CPT to be knowledgeable and supportive. Alternatively, the comparison level for alternatives is when an individual examines potential other available relationships if they were to abandon the current one, such as a client considering leaving their current CPT for another. Ideally, the individual will feel more committed to a relationship when their needs and expectations are fulfilled, or their rewards outweigh their costs, and when they perceive that other potential partners cannot match their current partner. However, there may be instances when an individual perceives other potential partners as more rewarding than their current partner, which may result in an individual feeling less committed to the relationship and more likely to abandon it.

Finally, the principle of adaptation states that individuals will create behavioral patterns over time based on previous interactions and relationships they have had in the past (Kelley & Thibaut, 1978; Van Lange & Balliet, 2015). Thus, their past experiences may act as relational scripts for navigating new relationships. For example, CPTs often have many clients, while clients typically have one CPT. The interactions with previous clients likely inform how CPTs will act when training a new client, and CPTs may become better at interacting with clients over time. Overall, when each of the factors mentioned above is maximized, the relationship is healthily interdependent.

Regarding self-expansion, interdependent relationships, such as those between CPTs and their clients, offer an opportunity to examine shared resources and outcomes (Aron et al., 1991). Specifically, each member of the dyad can influence and provide resources and perspectives that become shared, such that what benefits one person benefits the other (Aron & Aron, 2006). For example, both members benefit from the other being committed to the relationship, with CPTs earning a consistent income and clients achieving their fitness and physical health goals. Commitment to a relationship signals openness to relationship-induced growth (Hadden & Agnew, 2020). Therefore, clients with a stronger sense of closeness with their CPT are likely to perceive higher relational quality, as coaches can fulfill basic needs, heighten positive affect, and enhance the self (Jowett & Nezlek, 2011). Ultimately, goal achievement becomes more likely with access to and closeness with another (Aron et al., 2013), as clients' fitness goals are aided by working with their CPT.

Definitions

Motivation. According to the self-expansion model (Aron & Aron, 2006), individuals have an *inherent* motivation to expand their self-concept by developing close relationships, engaging in new experiences, and acquiring resources, perspectives, and identities that help facilitate goal achievement. Here, motivation drives the development of relationships as an individual considers the potential relationship's desirability and probability (Aron & Aron, 1996). Desirability concerns the perception of how much self-expansion opportunity another may provide. If the other possesses qualities desired by an individual, then desirability to form the relationship may be high. Further, probability concerns the perceived likelihood that a relationship can be formed with the other. If an

individual perceives the likelihood to be high, they are more likely to pursue the relationship. For example, from the clients' perspective, CPTs are likely perceived as having high desirability as they can provide knowledge and skills, as well as a high probability of relationship formation since the relationship is transactional. However, motivation may not be an *inherent* cognition and driver of behavior as Aron and Aron (1996) suggest. To that end, two teams of researchers have tried to determine if motivation variability exists within individuals within the self-expansion model framework.

First, Mattingly and colleagues (2012) investigate motivation by exploring the hedonic principle (Higgins, 1998). The hedonic principle states that individuals have two motivational systems that guide their behavior. The behavioral approach system (BAS) entails seeking positive, pleasurable outcomes, while the behavioral inhibition system (BIS) entails avoiding negative, painful outcomes. Higgins (1998) believes that striving for the ideal self promotes approach behaviors given that achieving the ideal self is viewed as rewarding.

In the context of self-expansion (Aron et al., 2013; Aron & Aron, 1996), individuals may be motivated to a varying degree to approach those they perceive as desirable or capable of providing self-expansion opportunities, while avoiding those that are not perceived as capable (Mattingly et al., 2012). Approach motivation is particularly strong when individuals are perceived as beneficial sources of self-expansion opportunity and when they possess qualities that are dissimilar to their own. Furthermore, approach motivation is positively associated with self-expansion, while avoidance motivation is not significantly associated with self-expansion (Mattingly et al., 2012).

18

Next, Hughes and colleagues (2019) suggest that an individual's motivation varies depending on their willingness or desire to improve their self-concept or to have it remain the same. The motivation to improve involves an individual's motivation to change their self-concept through establishing relationships with others or engaging in novel, interesting, or challenging activities. Conversely, the motivation to remain the same, or self-conservation, involves an individual's motivation to keep their self-concept stable by engaging in routine activities. Motivation to improve is positively associated with several growth, sensation seeking, and openness measures and is also linked with self-concept size growth and greater exerted effort on tasks. While both of the two aforementioned conceptualizations of motivation have shown promise in their respective studies (Hughes et al., 2019; Mattingly et al., 2012), within the context of client-CPT relationships and health behaviors, another type of motivation is important to consider.

Traditionally, human motivation has been defined as the drive to behave or act in a particular way to satisfy needs and achieve goals (Vallerand & Bissonnette, 1992; Vallerand & Ratelle, 2002). According to self-determination theory (Deci & Ryan, 1985), individuals are motivated to engage in healthy behaviors for either internal (autonomous) or external (controlled) reasons. Internal motivations originate from within the individual and include everything from biological survival functions including eating, to engaging in an activity for pure enjoyment or pleasure (i.e., intrinsic regulation; Ingledew & Markland, 2008; Vallerand & Bissonnette, 1992), for personal importance or benefit (Young & Burke, 2017), or based on an individual consciously valuing a behavior (i.e., identified regulation; Ingledew & Markland, 2008). External motivations are driven by environmental factors that originate outside the self and can include engaging in a

behavior to gain rewards and or avoid punishments (Vallerand & Bissonnette, 1992; Young & Burke, 2017), or when external factors have been internalized (i.e., introjected regulation; Ingledew & Markland, 2008). For example, an individual may be internally motivated to hire and train with a CPT because they hope to achieve personal fitness and physical health goals (Read, 2020b). Alternatively, the same individual may be externally motivated to hire and train with a CPT because they are seeking the approval of a romantic partner (Lewis & Butterfield, 2007) or may be under their physician's order (Schutzer & Graves, 2004). Research suggests that individuals are more likely to adhere to long-term health behaviors based on internal versus external motivation (Deci & Ryan, 2008), as exercising for personal reasons is positively associated with exercise enjoyment and competence (Boyd et al., 2002) and increased self-worth and well-being (Sebire et al., 2009). Additionally, individuals may also possess amotivation, or the lack of motivation to engage in particular behaviors (Deci & Ryan, 2008).

Given that the current context involves individuals working with CPTs, motivation in the current study is conceptualized as the internal or external reasons why an individual chooses to hire a CPT. Further, amotivation is not considered, as clients have already actively made the choice to hire a CPT and, therefore, are likely already motivated. Thus, *it is hypothesized that clients' level of internal motivation will have a larger (positive) effect on their self-disclosure with their CPT compared to their level of external motivation*. Further, because internal motivation has been shown to be a stronger predictor of health behaviors than external motivation (Deci & Ryan, 2008), *it is hypothesized that clients' level of internal motivation will have a larger (positive) effect on their experiences of self-expansion compared to their level of external motivation*.

20

Self-expansion. Self-expansion is the process of gaining new resources, perspectives, and identities that increase one's self-concept and help facilitate goal achievement (Aron & Aron, 1986; Aron et al., 2013; Aron et al., 1995). Said differently, individuals are attracted to and seek relationships and experiences to increase their self-concept or self-efficacy. Close relationships may provide an individual with knowledge, support, and a sense of community to make it easier for them to function in multiple areas of life and accomplish their goals (Aron et al., 2013). Within the client-CPT context, clients may benefit from access to the resources, perspectives, and identities of their CPT.

Resources include the material, knowledge, and social assets of another (Aron & Aron, 2006). Access to more resources within the relationship relates to more sharing of those resources and subsequent increases in closeness (Aron et al., 1991). For example, a client may gain new knowledge of specific exercises and other physical health tips. Perspectives describe experiencing the world through another's perspective (Aron & Aron, 2006). For example, after several training sessions, clients may understand the value their CPT places on physical health and exercise safety. Thus, clients may become more aware of how they perform an exercise to ensure proper form to avoid injury. Lastly, identity refers to blending one's traits and memories with close others (Aron & Aron, 2006). For example, clients may begin to embody some of their CPT's characteristics, such as confidence and a passion for exercise.

Process of Self-Expansion

Initially, Aron and Aron (1986) examined how forming a romantic relationship stems from a fundamental motivation to self-expand, such that individuals are attracted to others because they have an unconscious motivation to increase their efficacy.

Individuals may increase their efficacy by becoming interdependent with or close to others and engaging in activities with others. However, an extension of the original model called directed self-expansion posits that individuals may be *purposefully* motivated to engage in relational pursuits, particularly when the partner has qualities of their ideal self (Zhou et al., in review). Likely, directed self-expansion helps explain clients' motivation to establish close, interdependent relationships with their CPT.

  Inclusion of other in the self. Self-expansion is theorized to occur through the inclusion of other in the self (Aron & Aron, 1996). Through inclusion of other in the self, some aspects of the other become aspects of the self. For example, individuals begin to overlap their sense of self and related experiences with others, developing a sense of interdependence. Further, self-expansion is thought to occur rapidly at the start of a new relationship as the two individuals interact and establish closeness (Aron et al., 1991), but may continue to occur in developed relationships (Aron et al., 2013). One of the primary ways to establish closeness in relationships is through self-disclosure (Aron et al., 1997, Sprecher, 2020).

  Self-disclosure. Self-disclosure is the purposeful sharing of personal information with another that is not already known (Altman & Taylor, 1973). For example, clients typically disclose their personal health history and fitness goals to their CPT before training begins. According to social penetration theory (Altman & Taylor, 1973), self-disclosure is the primary relationship development process. Further, development likely occurs by first sharing superficial information like name and hometown, then moving gradually in a systematic-like process revealing more intimate information about the self,

such as goals and values; this process is known as social penetration (Altman & Taylor, 1973).

From the social penetration perspective, relational development occurs in a four-stage process: (1) orientation, (2) exploratory affective, (3) affective, and (4) stable, dependent on the type and amount of self-disclosure (Altman & Taylor, 1973). Based on an onion analogy, individuals start by sharing a variety of superficial details on the outer layers of the self, or breadth, and gradually peel back their layers to purposefully reveal intimate details, getting to the core of the self, or depth. First, in the orientation stage, individuals engage in small talk and reveal non-threatening information about the self like personal characteristics (Altman & Taylor, 1973). Second, in the exploratory affective stage, individuals share a bit more personal information, attitudes, and preferences but are still cautious about revealing who they are on a deeper level (Altman & Taylor, 1973). This stage is where most casual friendships exist, and most relationships do not go further than this. However, if relational development continues, individuals feel more comfortable and enjoy their established relationship in the affective stage. Therefore, they may share both positive and negative information and details and engage in conflict; close friends and romantic partners typically occupy this stage. Finally, when the dyad reaches the stable stage, there is complete openness in the relationship. Individuals will share their deepest fears, values, beliefs, and concepts of self and be vulnerable with their emotions. Thus*, it is hypothesized that clients' self-disclosure will positively predict their level of perceived closeness to their CPT. Additionally, it is hypothesized that clients' self-disclosure will positively predict their perceptions of support from their CPT.*

While self-disclosure is theorized as a gradual process of information sharing (Altman & Taylor, 1973), self-disclosure may also occur rapidly at the beginning stages of the relationship, resulting in greater closeness and self-expansion (Sprecher, 2020). In new relationships, approach motivation may lead to sharing information quickly. Notably, one reason for rapid disclosure is the perceptions of attraction and closeness to the other during an initial interaction, known as "clicking" (Berg & McQuinn, 1986). Additionally, individuals may readily self-disclose if they predict a positive outcome value of a potential relationship with the other, known as predicted outcome value theory (see Sunnafrank, 1986; Sunnafrank & Ramirez, 2004). Either of these reasons may be the impetus for fast sharing between clients and CPTs during their initial meeting.

Regardless of speed, the self-disclosure developmental process helps advance relationships and increases the overall level of relational satisfaction (Sprecher & Hendrick, 2004) and closeness and intimacy between the dyad (Aron et al., 1997; Reis & Shaver, 1988; Slatcher, 2010). Sharing information allows each individual to learn more about the other, their perspectives of the world, and if they can assist them in any way. Further, self-disclosure supports creating an interdependent relationship as a source of increased self-efficacy and self-expansion (Aron & Aron, 1996; Aron et al., 1997; Sprecher, 2020). Thus*, it is hypothesized that clients' level of perceived closeness with their CPT will positively predict their experiences of self-expansion*. While self-disclosure is positioned as the primary means of developing close relationships and experiencing self-expansion, individuals may also self-expand by engaging in joint activities.

Novel and challenging activities. Experiencing novel, exciting, and challenging activities with another also represents a way for a dyad to experience self-expansion (Aron et al., 2013; Mattingly & Lewandowski, 2014a). Particularly, self-expansion occurs when engaging in new, arousing, or challenging activities, but not when the tasks are too difficult or stressful to complete (Mattingly & Lewandowski, 2014b). Self-expansion occurs during these activities because individuals likely draw on one another's resources, perspectives, skills, and abilities to accomplish the task. As such, novel and challenging activities such as learning a new skill are viewed as more self-expanding than those perceived as mundane such as reading a list of items (Mattingly & Lewandowski, 2014b). As clients likely engage in new and challenging exercises during training sessions, CPTs likely play a crucial support role for their clients' efficacy and growth.

Perceptions of Support

Given that establishing close relationships occurs by gradually revealing more personal information about oneself (Altman & Taylor, 1973; Sprecher, 2020), and that choosing to pursue goals may result in failure or disappointment (Jakubiak & Feeney, 2016), attempting to self-expand can be risky. Thus, the availability of support may be a key variable that explains self-expansion experiences (Jakubiak & Tomlinson, 2020). Feeney and Collins (2015) recently developed a typology of support that likely helps explain the association between closeness and self-expansion. The relational catalyst support model describes a close other as a secure base of support when seeking continued growth and goal pursuit (Feeney & Collins, 2015). To be a supportive base, individuals make themselves available to the other, do not interfere in the other's growth and goal pursuits, and provide encouragement (Feeney & Thrush, 2010). Feeney and Collins

(2015) suggest that relational catalyst support occurs through four steps: (1) discuss the importance of self-growth, (2) point out growth opportunities while reframing them as challenges instead of threats, (3) teach the necessary skills for growth, and (4) be a supportive base during the other's development.

The relational catalyst support process likely occurs within the client-CPT relationship. Particularly, CPTs likely act as a secure base for their clients' growth throughout the training process by making themselves available for support (McAuley & Courneya, 1993) and providing encouragement (Emery, 1984). Initially, clients typically have some anxieties when starting their training (Weidner & Henning, 2002). To combat this anxiety, CPTs can follow the four-step process outlined above. First, CPTs can explain why following a workout routine is essential, such as improved physical and psychological health outcomes (CDC, 2020). Second, CPTs can discuss growth opportunities such as personal fitness and goal achievement while framing training as worth the time and effort. Third, CPTs can actively model exercises and teach proper body positioning during exercise. Fourth, CPTs can be there when the client has questions, concerns, or needs reassurance (Weidner & Henning, 2002). Thus, *it is hypothesized that clients' level of perceived closeness with their CPT will positively predict their perceptions of support from their CPT.*

There are numerous beneficial outcomes stemming from the relational catalyst support model including improved psychological well-being, relational quality and closeness, and physical health outcomes such as increased physical activity and healthy lifestyle behaviors (Feeney & Collins, 2015; Jakubiak & Feeney, 2016; Tomlinson et al., 2016). Given that clients likely benefit from their CPT's supportive behaviors (Pettitt,

2013), *it is hypothesized that clients' perception of support from their CPT will positively predict their experiences of self-expansion.*

Self-Expansion Outcomes

While self-expansion was initially theorized as a positive increase in one's self-concept due to the sharing of resources and perspectives within close relationships (Aron & Aron, 1996; Aron et al., 2013), recent research argues that one's self-concept may change as a function of direction and valence (Mattingly et al., 2014). Direction refers to an increase or decrease in the self-concept's size, while valence refers to the subjective content of self-concept as either positive or negative. Based on these two dimensions, two categories of self-change (Mattingly et al., 2020) are possible: (1) improvement processes (self-expansion and self-pruning) and (2) degradation processes (self-contraction and self-adulteration).

Improvement processes. The first possible improvement process is self-expansion (Mattingly et al., 2014). Individuals may gain new resources, perspectives, or identities, or develop expertise in a specific area they desire by interacting with close others (Aron et al., 2013; Gordon & Luo, 2011). An individual's self-concept may be improved by the Michelangelo phenomenon (Mattingly et al., 2014). This phenomenon occurs when an individual attempts to mold another by highlighting the individual's positive, ideal aspects while minimizing their less desirable characteristics (DiDonato, 2020; Drigotas et al., 1999). This phenomenon is based on the notion that individuals have multiple selves – one's actual self, and the person one wishes to become (Higgins, 1987). The Michelangelo phenomenon is accelerated when the partner embodies characteristics of the other's ideal self (Rusbult et al., 2009), suggesting that there is

27

greater potential for self-change when the other offers greater self-expansion opportunities (DiDonato, 2020; Mattingly et al., 2012). For example, clients may seek a CPT because of their qualities and physique (Melton et al., 2008), such as strength, lean muscle mass, and the ability to lead a healthy lifestyle.

Partners can help one another achieve their ideal self by engaging in supportive behaviors, such as engaging in exercise together, or providing positive messages, such as affirmations (DiDonato, 2020). For example, in a weight-loss study (Xu et al., 2017), self-expansion was positively associated with treatment adherence and increased physical activity, providing evidence that self-expansion may be beneficial in promoting behavioral change (Xu, 2020) and exercise adherence (Strohacker et al., 2015). Therefore, clients stand to gain from their CPT creating an exercise plan that varies the specific exercises over time as the clients work toward their physical health goals.

The other self-improvement process is self-pruning (Mattingly et al., 2020). Self-pruning is improving the self-concept through decreasing or eliminating negative aspects of the self, or addition through subtraction (Mattingly et al., 2014). Individuals may be motivated to limit or decrease negative attributes themselves or close others may be directly involved by purposefully seeking to reduce negative attributes, as experienced through the Michelangelo phenomenon (Drigotas et al., 1999). For example, internally, clients may desire to limit their unhealthy eating habits for their personal benefit. Alternatively, externally, clients may desire to limit these same unhealthy behaviors due to their partner or CPT encouraging them to be healthier.

Being involved in a close relationship may induce self-pruning behaviors, consciously or unconsciously (Mattingly et al., 2014). However, limited research on self-

pruning exists. Of the existing literature, self-pruning is associated with psychological adjustment (McIntyre et al., 2017) and increased relational satisfaction and commitment (Mattingly et al., 2014). However, given that self-pruning is an improvement process (Mattingly et al., 2020), it likely functions similarly to self-expansion. As such, several hypotheses are posited. First*, it is hypothesized that clients' level of internal motivation will have larger (positive) effect on self-pruning than their level of external motivation.* Next, *it is hypothesized that clients' level of perceived closeness with their CPT will positively predict their experiences of self-pruning*. Finally, *it is hypothesized that clients' perceptions of support from their CPT will positively predict their experiences of self-pruning.*

Degradation processes. The other two self-change outcomes are labeled degradation processes (Mattingly et al., 2020). The first degradation process is self-contraction (Mattingly et al., 2014). Self-contraction occurs when there is a decrease in the positive aspects of the self. For example, clients may neglect their relationships to focus on their training, resulting in a loss of rewarding connections and experiences. The other degradation process is self-adulteration, which occurs when there is an increase in the self-concept's negative aspects (Mattingly et al., 2014). For example, clients may begin to use unhealthy performance enhancers or engage in unhealthy dieting habits due to their desire to transform their physique (Latham et al., 2019). However, given the scope of the current study, the degradation processes are not discussed further.

Mattingly and colleagues (2020) believe that the original self-expansion model's conceptualizations and extensions complement one another to provide a fuller understanding of how relationships can influence self-concept change. *However, it*

remains unclear which individual factors are the strongest predictors of self-expansion in nonromantic, relational contexts when considering the primary route of inclusion of other in the self. For many, joining a gym and hiring a CPT are perfect opportunities for self-change. Particularly, clients are likely motivated to achieve specific goals or get closer to their ideal self and choose to do so by establishing a close, interdependent relationship with their CPT.

Fitness Client-CPT Relationship

Currently, there are approximately 340,000 CPTs in the U.S. (Read, 2020b). Research indicates that personal training is a growing industry due mostly to increases in obesity rates (CDC, 2020), with the training industry projected to grow by 15% between 2019 and 2029 (US Bureau of Labor Statistics, 2020). The increase is likely, as two of the primary reasons individuals hire CPTs are to improve their overall health and transform their body through weight loss and muscle building (Read, 2020b). Based on the self-expansion model (Aron & Aron, 1986; Aron & Aron, 1996), clients likely act on their motivations (internal and external) to improve themselves by seeking and establishing close relationships with a CPT. Thus, clients seeking a CPT may represent an instance of directed self-expansion (Zhou et al., in review), as CPTs likely embody the traits of the clients' ideal self (Melton et al., 2008).

An individual may choose a personal training career for several reasons, including having a passion for fitness, income potential, independence, and a desire to help others (American Council on Exercise, 2018). Certified personal trainers are fitness professionals who provide their clients with tailored training services to improve their health and fitness and support them through their journey (Waryasz et al., 2016). Thus,

CPTs must be knowledgeable about exercise science and possess practical communication skills to establish and maintain a close, interdependent bond with their clients (Emery, 1984; Melton et al., 2008; Weidner & Henning, 2002).

CPT Knowledge

One of the CPTs' primary tasks is to help clients safely transform their physical health and reach their fitness goals (Melton et al., 2008; Weidner & Henning, 2002). To accomplish this task, prospective CPTs go through a certification process (Craig & Eickhoff-Shemek, 2009). The National Commission for Certifying Agencies (NCCA) accredits several prominent CPT programs (Institute for Credentialing Excellence, 2020) that each have a slightly different approach to training. Some of the most well-known programs include the American College of Sports Medicine (ACSM), American Council on Exercise (ACE), National Strength and Conditioning Association (NSCA), and the National Academy of Sports Medicine (NASM).

Training programs strive to ensure that all of their CPTs are competent and capable enough to provide clients with life-changing personal training services, a crucial aspect of physical healthcare (Craig & Eickhoff-Shemek, 2009; Weidner & Henning, 2002). Programs are typically self-study lasting approximately 10 to 12 weeks, with the option of hands-on training. During the training, prospective CPTs learn exercise physiology, programming, and safety (Craig & Eickhoff-Shemek, 2009). Further, programs also require prospective CPTs to become CPR certified. Prospective CPTs are encouraged to receive applied experience (Craig & Eickhoff-Shemek, 2009) and choose an advanced specialization (Read, 2020a). Some advanced specializations include youth and corrective exercise, nutrition and weight loss specialists, and senior fitness. Each

specialization varies in length and intensity, but earning one allows CPTs to increase their knowledge and skills to better support their clients.

Overall, CPTs are trained to create tailored exercise programs for their clients that vary the number of sets and repetitions, tempo, rest intervals, frequency and duration of the training, and type and number of exercises for maximum effect (Waryasz et al., 2016). Alongside training competence and expertise, it is advised that CPTs also develop strong, lasting relationships with clients through effective communication skills (Melton et al., 2008; Weidner & Henning, 2002).

Relational Dynamic

Research suggests that service providers in specific industries have the ability to play a profound role in their clients' lives (Roberts-Dobie et al., 2018), commonly referred to as lay health educators (South et al., 2013). A service relationship occurs when both the client and provider plan to interact again in the future, making them interdependent upon one another (Gutek et al., 2000). The client-CPT relationship represents an interdependent relationship (Jowett & Nezlek, 2011) in which both members of the dyad may benefit from the other. Specifically, clients receive fitness instruction that helps propel them toward their health and fitness goals, while the CPT receives a source of income from their clients.

Most notably, the lay health educator (LHE) phenomenon has been examined extensively in the hair salon and barbershop environment (Anderson et al., 2010; Beebe et al., 2018; Davis, 2011, 2013; Mbilishaka, 2018; Roberts-Dobie et al., 2018), where hairstylists/barbers and their clients can become either close or very close because of the amount of time spent in the establishment and the number of years of regular

appointments (Anderson et al., 2010; Beebe et al., 2018; Mbilishaka, 2018). Through continued and planned future interactions, the dyad begins to develop a level of trust for one another as they get to know each other within the roles they play and as individuals, similar to the client-CPT relationship. Thus, one crucial communication skill for CPTs that likely supports relational development with clients is active listening (Emery, 1984; Laurent & Weidner, 2001; Weidner & Henning, 2002).

Active listening. The exercise science knowledge gained during the CPT training program is only one piece of what it takes to be a successful CPT (Weidner & Henning, 2002). CPTs possessing strong communication and interpersonal skills (Emery, 1984), such as active listening (Levitt, 2002), will have an easier time connecting with their clients. Research suggests that client loyalty is a function of the CPT's ability to empathize and attend to their clients interpersonally (Melton et al., 2008). How CPTs choose to interact with their clients is a great determinant of whether or not the client will come back for more sessions, which may manifest itself in clients giving up on their health and fitness goals (Lafrenière et al., 2011). Further, forming strong interpersonal bonds can play an essential role in the perception of support during training and goal achievement (Briskin et al., 2017; Weidner & Henning, 2002). Thus, CPTs likely sustain a friendly rapport throughout their training sessions and make the client feel valued (Weidner & Henning, 2002).

Active listening entails an actual interest in the client through paying attention, making eye contact, avoiding distractions, asking appropriate questions, and providing feedback (Levitt, 2002). CPTs can utilize open-ended questions to actively invite a response in which the client will provide more information about themselves, creating a

more collaborative relationship (Emery, 1984; Weidner & Henning, 2002). During active listening, CPTs may paraphrase, check for understanding, and provide affirmations to ensure that their client feels heard, understood, and appreciated. Active responses and person-centered messages exhibited with enthusiasm and interest are associated with understanding, validation, and higher relational satisfaction (Fivecoat et al., 2015).

Active listening is also vital in forming an interdependent relationship as it is positively associated with feelings of closeness, trust, empathy, and openness (Topornycky & Golparian, 2016; Weger et al., 2014). Further, actively listening to the client likely shows that the CPT is supportive, resulting in the client feeling more comfortable and open to dialogue (Weidner & Henning, 2002). Thus, *it is hypothesized that clients' perceptions of their CPT's active listening skills will moderate the (positive) association between clients' self-disclosure and level of perceived closeness with their CPT*. As such, active listening is beneficial when the client discloses their health- and exercise-related concerns and training goals.

Common disclosures. While many can elect to exercise alone, many purposefully decide to connect with an expert who can provide them with new knowledge, skills, and support to help them reach their goals. During the initial meeting and throughout training sessions, CPTs ask questions and assess their clients' physical health and personal goals (Weidner & Henning, 2002). Given that self-disclosure typically occurs in a gradual process with more breadth than depth (Altman & Taylor, 1973), revealing personal information upon first meeting their CPT may cause the new client some anxiety (Weidner & Henning, 2002). However, once the client has disclosed any health issues, CPTs may recap and focus on the physical (Penedo & Dahn, 2005) and psychological

34

(Hughes, 1984; Weyerer & Kupfer, 1994) health outcomes that exercising produces. CPTs may also be direct and honest about the potentially negative experiences and barriers the clients will likely encounter (Weidner & Henning, 2002). It is essential to establish high trust and open communication (Emery, 1984), as clients' level of perceived closeness with their CPT likely influences their outcomes.

Relationship impact. CPTs help their clients accomplish their fitness goals by supporting and increasing their self-efficacy (Pettitt, 2013). New clients are encouraged to work with their CPT two to three times per week for approximately one hour for about two to three months, at which time the client can cut down sessions to once per week (Ellgen, 2019). Further, as touch is associated with developing a closer bond (Stonehouse, 2017), CPTs may actively guide their clients through the training session, providing physical support throughout the exercise movements. Frequent interactions (Ellgen, 2019), touch (Stonehouse, 2017), and exhibiting positive social skills such as active listening helps solidify the close bond between CPTs and their clients (Melton et al., 2008; Weidner & Henning, 2002).

One of the leading causes of exercise cessation is a lack of motivation (Melton et al., 2008), while having a strong support network is one of the most significant predictors of exercise adherence (McAuley & Courneya, 1993). Research on exercise leaders indicates that CPTs can increase their clients' exercise adherence and self-efficacy (McAuley & Courneya, 1993). CPTs are likely to provide support (Feeney & Collins, 2015) to help scaffold clients through their anxieties and physical issues as they work toward goal achievement. Further, clients are especially likely to adhere to their exercise

35

plan when the CPT establishes a strong social connection between themselves and their clients (Estabrooks et al., 2004), translating to improved health outcomes.

Lay health educators are vital sources of informational and emotional support, acting as a bridge between the formal healthcare system and the informal community support system in which they work (Roberts-Dobie et al., 2018). Through consistent, repeated interactions, there is the possibility that CPTs may function similarly to LHEs from a supportive standpoint, based on their social skills and ability to develop close relationships with community members (South et al., 2013). As CPTs are typically highly invested their clients' health and well-being (Weidner & Henning, 2002), their supportive nature may extend to other areas of their personal lives. Thus, the conversations between clients and their CPT are invaluable.

Unknown disclosures. Some clients have been willing to actively disclose to stylists and barbers about intimate topics, including physical health and family-related problems (Anderson et al., 2010). As having a close bond is closely linked with the amount and depth of disclosures (Altman & Taylor, 1973), fitness clients may also have meaningful conversations with their CPT during training sessions about personal and intimate matters. While CPTs are certified physical health professionals regarding body and muscle movements and improving their clients' physical capabilities (Laurent & Weidner, 2001), they are not medical or psychiatric professionals. However, stylists and personal trainers may be seen as "natural helpers" who can provide information and have discussions about significant concerns that clients may be anxious to discuss in traditional health care settings (Beebe et al., 2018; Roberts-Dobie et al., 2018).

While it is unclear what specific topics CPTs discuss with their clients during training sessions aside from training-related instruction, LHEs are often on the receiving end of difficult or taboo topics with their clients (Roberts-Dobie et al., 2018). For example, LHEs have encountered disclosures about sexual, physical, and mental health. Specifically, prior research has revealed conversations about unintended pregnancy and contraceptive use among women (Roberts-Dobie et al., 2018) and heart health and high blood pressure within the Black community (Davis, 2011, 2013). Research also suggests that LHEs may be able to recognize depression and subsequently play a vital role in referring clients to mental health services (Anderson et al., 2010).

Lay health educators are beneficial to their clients' health outcomes and are essential based on their reach and rapport with clients, embodying "natural helpers, trusted confidants, and willing partners" (Roberts-Dobie et al., 2018, p. 36). Thus, to be an effective source of support upon hearing difficult and intimate disclosures, researchers suggest that LHEs educate themselves about the issues, combat misinformation, not perpetuate myths, and feel motivated to help their clients (Roberts-Dobie et al., 2018). Lay health educators can offer advice, present alternative options to their clients, and show sympathy or empathy in a way to cheer up their client (Anderson et al., 2010). A research study with older clients showed that the availability of emotional, informational, and instrumental support was why clients reported high-quality interactions with their providers (Anderson et al., 2010). While research is scarce, conversations similar to those in barbershops and salons are likely occurring within the client-CPT relationship; however, little is known about the topics of conversation and how often those topics are discussed. Therefore, it is important to learn what these topics are and their frequency, as

CPT training could be enhanced with a better understanding of the types of conversations that may occur during training sessions. As such, this study asks, *what specific topics do clients disclose to their CPT and how often do they discuss common conversational topics*?

Research Questions and Hypotheses

While Aron and Aron (1996; 1986) posit that motivation to improve or grow the self-concept is inherent, the current study examines both the operationalized internal and external motivations why an individual might hire a CPT. Internal motivation includes reasons that come from within the individual such as exercising with a CPT out of enjoyment, while external motivation includes reasons that are associated with rewards or punishments from others such as exercising with a CPT to reduce criticism from others (Deci & Ryan, 1985; Young & Burke, 2017). Furthermore, given that self-disclosure is the primary way that closeness develops (Sprecher, 2020) and a necessary step for self-expansion to occur (Aron et al., 2013), it is likely that clients' motivations positively predict their self-disclosure to their CPT. Additionally, research suggests that internal motivation is a stronger predictor of health behaviors compared to external motivation (Deci & Ryan, 2008). Given this, internal motivation may be a stronger predictor of self-expansion than external motivation. Therefore, the following hypotheses (H) will be tested:

H1: Clients' level of internal motivation will have a larger (positive) effect on their self-disclosure with their CPT compared to their level of external motivation.

H2: Clients' level of internal motivation will have a larger (positive) effect on their experiences of self-expansion compared to their level of external motivation.

Within close relationships, disclosures tend to elicit sensitive and appropriate responses (Jowett & Ntoumanis, 2004). Additionally, self-disclosure is positively associated with relational satisfaction (Sprecher & Hendrick, 2004) and closeness (Sprecher, 2020). As becoming a fitness client may be difficult and anxiety-producing (Weidner & Henning, 2002), clients likely actively and purposefully disclose their personal health information and fitness goals to their CPT. Thus, clients are likely to perceive support from their CPT based on their disclosures. Therefore, two hypotheses regarding self-disclosure are advanced:

> H3: Clients' self-disclosure will positively predict their level of perceived
>
> closeness to their CPT.

> H4: Clients' self-disclosure will positively predict their perceptions of support
>
> from their CPT.

> Self-expansion is thought to occur in response to the level of perceived closeness with another individual, such that close others are capable of increasing the positive aspects of the self and advancing their growth (Aron et al., 2013; Mattingly et al., 2014). Further, CPTs and clients may establish a strong social connection. As having a secure and supportive base is beneficial for self-expansion opportunities (Jakubiak & Tomlinson, 2020), CPTs may help their clients by modeling behaviors and providing advice and positive feedback to ensure their clients' safety and growth (Emery, 1984). Therefore, the following three hypotheses will be tested:

> H5: Clients' level of perceived closeness with their CPT will positively predict
>
> their experiences of self-expansion.

H6: Clients' level of perceived closeness with their CPT will positively predict their perceptions of support from their CPT.

H7: Clients' perceptions of support from their CPT will positively predict their experiences of self-expansion.

Self-pruning reduces the negative aspects of the self (Mattingly et al., 2014) and is thought to be the other improvement process alongside self-expansion (Mattingly et al., 2020). Thus, self-pruning is likely experienced in similar ways to self-expansion. For example, clients may be motivated to limit unhealthy behaviors for internal or external reasons (Drigotas et al., 1999; Young & Burke, 2017). It is also possible that CPTs provide support during training sessions, such as correcting bad exercise form, that allows clients to experience self-pruning. Therefore, three hypotheses concerning self-pruning will be tested:

H8: Clients' level of internal motivation will have a larger (positive) effect on self-pruning than their level of external motivation.

H9: Clients' level of perceived closeness with their CPT will positively predict their experiences of self-pruning.

H10: Clients' perceptions of support from their CPT will positively predict their experiences of self-pruning.

Finally, clients are likely to engage in a variety of conversations with their CPT during training sessions and may even disclose intimate information. During these disclosures, clients' perceptions of their CPT's active listening, such as paraphrasing and nonverbal feedback, can allow for a more collaborative relationship (Emery, 1984; Weidner & Henning, 2002), one that is positively associated with relational satisfaction

(Fivecoat et al., 2015) and feelings of closeness, trust, and openness (Topornycky &

Golparian, 2016; Weger et al., 2014). As such, if a client perceives their CPT to actively

listen during personal disclosures, it is likely that clients will report higher levels of

relational closeness. However, there is a lack of research concerning the possible personal

disclosure topics that clients discuss with their CPT. Further, it is also unclear how often

clients discuss said topics. Thus, the present study posits the following hypothesis and

two research questions:

> H11: Clients' perceptions of their CPT's active listening skills will moderate the
>
> (positive) association between clients' self-disclosure and level of perceived
>
> closeness with their CPT.
>
> RQ1: What intimate information do clients disclose to their CPT?
>
> RQ2: How often do clients discuss common conversational topics with their
>
> CPT?

CHAPTER 3

METHOD

Recruitment

IRB approval was secured before conducting the study (#00012952; Appendix A and B). Participants were recruited through Amazon's Mechanical Turk (MTurk) and ResearchMatch, a participant recruitment system for health-related studies. Both recruitment platforms are beneficial as they can capture a more demographically diverse sample than a convenience sample of college students (Buhrmester et al., 2011; Harris et al., 2012). Participants were eligible for participation if they met the following criteria: (1) at least 18 years old, (2) be able to read and write in English, and (3) be actively training with a certified personal trainer (CPT).

Participants

Through MTurk, $N = 179$ individuals accessed the survey. Of these responses, $n = 57$ were removed for several reasons. First, $n = 23$ were removed for having excessive missing data. A feature on Qualtrics notified participants of unanswered questions on the page as they completed the survey. Subsequent examination of the data revealed patterns of missingness, which resulted in removal. Next, $n = 10$ were removed for completing the survey in under nine minutes as the survey took approximately 22.33 minutes ($SD = 8.55$) to complete upon removing several outliers. Third, $n = 24$ were removed for providing invalid or fake responses on open response questions (e.g., responding by writing "good" in all qualitative response questions). The remaining MTurk sample included $n = 122$ participants. A response rate was unavailable as there was no way to

determine how many individuals saw the solicitation. MTurk participants received $2 upon completion of the survey.

Through ResearchMatch, a recruitment message was sent to the 140,290 research volunteers asking for their participation if they met the above criteria. If interested in the study, participants indicate "I'm interested," which sends a message to the researcher with their personal contact information. Initially, $N = 732$ individuals expressed interest and $n = 358$ completed the survey, a response rate of 48.9% based on those who were interested. Of those responses, $n = 85$ were removed for two reasons, including $n = 66$ removed for having excessive missing data and $n = 19$ removed for completing the survey in under nine minutes. Additionally, three participants who reported identifying as gender non-binary were removed from the analyses. Removal of these three participants occurred due to an inability to draw meaningful gender differences from a very small sample (Dickinson et al., 2012) and because participants' sex and gender were considered as control variables. All remaining participants indicated identical responses for sex and gender, such that biological males reported a male gender identity, while biological females reported a female gender identity. To avoid redundancy and maximize data, only participants' sex was controlled for. The remaining ResearchMatch sample was $n = 270$ participants. ResearchMatch participants were entered into a random drawing to win one-of-forty $15 Amazon e-gift cards using a random number generator.

Recruitment platform comparisons. Comparison of the two recruitment platforms indicated several significant differences on key study variables. See Table 1 for *t*-test means and standard deviations for the platform differences. First, results revealed a significant difference between MTurk and ResearchMatch participants' internal

motivation, $t(390) = -3.45$, $p < .01$, $d = .38$, where ResearchMatch participants reported significantly higher levels of internal motivation ($M = 5.82$, $SD = .93$) compared to MTurk participants ($M = 5.47$, $SD = .93$). Second, results revealed a significant difference between MTurk and ResearchMatch participants' external motivation, $t(164.18) = 7.12$, $p < .001$, $d = .84$, where MTurk participants reported significantly higher levels of external motivation ($M = 3.06$, $SD = 1.68$) compared to ResearchMatch participants ($M = 1.89$, $SD = 1.04$). Third, results revealed a significant difference between MTurk and ResearchMatch participants' level of perceived closeness with their CPT, $t(390) = 4.33$, $p < .001$, $d = .48$, where MTurk participants reported significantly higher levels of perceived closeness with their CPT ($M = 4.23$, $SD = 1.74$) compared to ResearchMatch participants ($M = 3.39$, $SD = 1.78$). Fourth, results revealed a significant difference between MTurk and ResearchMatch participants' amount of perceived support from their CPT, $t(182.85) = -7.59$, $p < .001$, $d = .88$, where ResearchMatch participants reported significantly higher levels of perceived support ($M = 6.09$, $SD = .69$) compared to MTurk participants ($M = 5.37$, $SD = .93$). Fifth, results revealed a significant difference between MTurk and ResearchMatch participants' experiences of self-expansion, $t(390) = -3.06$, $p < .01$, $d = .34$, where ResearchMatch participants reported significantly higher experiences of self-expansion ($M = 5.93$, $SD = .81$) compared to MTurk participants ($M = 5.65$, $SD = .86$). Sixth, results revealed a significant difference between MTurk and ResearchMatch participants' levels of feelings of attachment anxiety, $t(162.80) = 5.48$, $p < .001$, $d = .65$, where MTurk participants reported significantly higher levels of attachment anxiety ($M = 2.97$, $SD = 1.63$) compared to ResearchMatch participants ($M = 2.10$, $SD = .99$). Finally, results revealed a significant

difference between MTurk and ResearchMatch participants' levels of feelings of attachment security, $t(390) = -2.29$, $p < .05$, $d = .24$, where ResearchMatch participants reported significantly higher levels of attachment security ($M = 5.88$, $SD = .85$) compared to MTurk participants ($M = 5.69$, $SD = .73$). In sum, MTurk participants reported significantly higher levels of external motivation, perceptions of closeness, and feelings of attachment anxiety compared to ResearchMatch participants; however, ResearchMatch participants reported significantly higher levels of internal motivation, perceptions of support, experiences of self-expansion, and feelings of attachment security compared to MTurk participants.

Table 1
t-test Comparisons Between Recruitment Platforms (N = 392)

	MTurk ($n = 122$)		ResearchMatch ($n = 270$)	
	M	*SD*	*M*	*SD*
1. Internal motivation	5.47	.93	**5.82****	.93
2. External motivation	**3.06*****	1.68	1.89	1.04
3. Closeness	**4.23*****	1.74	3.39	1.78
4. Support	5.37	.93	**6.09*****	.69
5. Self-expansion	5.65	.86	**5.93****	.81
6. Attachment anxiety	**2.97*****	1.63	2.10	.99
7. Attachment security	5.69	.73	**5.88***	.85
8. Age	37.22	9.27	**49.74*****	16.57
9. Income	5.81	2.53	**7.49*****	3.56
10. Relationship length	10.62	10.29	**21.80*****	28.20
11. Training sessions	54.01	108.50	**123.46*****	198.86

Note: Income based on brackets. 5 corresponds to income between $40,000 – 49,999. 7 corresponds to income between $60,000 – 69,999. Relationship length is in months. * $p < .05$, ** $p < .01$, *** $p < .001$.

There were also several differences between platform participants' survey completion duration and demographic variables. First, results revealed a significant difference between MTurk and ResearchMatch participants' survey completion duration,

$t(351) = -3.18, p < .01, d = .35$, where MTurk participants completed the survey

significantly faster ($M = 20.26, SD = 9.53$) compared to ResearchMatch participants ($M = 23.33, SD = 8.00$). Next, results revealed a significant difference between MTurk and

ResearchMatch participants' age, $t(372.90) = -9.53, p < .001, d = .93$, where

ResearchMatch participants reported being significantly older ($M = 49.74, SD = 16.57$)

compared to MTurk participants ($M = 37.22, SD = 9.27$). A chi-square test of

independence was performed to examine the association between recruitment platform

and participants' sex. Results suggest participants' sex differed by recruitment platform,

$\chi^2 (1, N = 392) = 31.10, p < .001$. When examining the actual versus expected values,

ResearchMatch had a higher number of females compared to MTurk. A chi-square test of

independence was performed to examine the association between recruitment platform

and education status. Results revealed that education status differed by recruitment

platform, $\chi^2 (6, N = 392) = 48.54, p < .001$. When examining the actual versus expected

values, ResearchMatch participants had higher levels of master, doctorate, and

professional degrees compared to MTurk participants. A chi-square test of independence

was performed to examine the association between recruitment platform and employment

status. Results revealed that employment status differed by recruitment platform, $\chi^2 (7, N = 391) = 50.83, p < .001$. When examining the actual versus expected values,

ResearchMatch participants were more likely to be disabled, retired, and students

compared to MTurk participants. However, MTurk participants were more likely to be

employed full time compared to ResearchMatch participants. Finally, results revealed a

significant difference between MTurk and ResearchMatch participants' income, $t(320.03) = -5.30, p < .001, d = .54$, where ResearchMatch participants reported a significantly

higher income (~$65,000; $M = 7.49$, $SD = 3.56$) compared to MTurk participants (~$48,000; $M = 5.81$, $SD = 2.53$).

Additionally, there were a few significant differences between MTurk and ResearchMatch participants' training. First, results revealed a significant difference between MTurk and ResearchMatch participants' relationship length with their CPT, $t(377.99) = -5.73$, $p < .001$, $d = .53$, where ResearchMatch participants reported a significantly longer relationship with their CPT in months ($M = 21.80$, $SD = 28.20$) compared to MTurk participants ($M = 10.62$, $SD = 10.29$). Results also revealed a significant difference between MTurk and ResearchMatch participants' number of sessions with their CPT, $t(375.78) = -4.45$, $p < .001$, $d = .43$, where ResearchMatch participants reported significantly more training sessions ($M = 123.46$, $SD = 198.86$) compared to MTurk participants ($M = 54.01$, $SD = 108.50$).

Sample demographics. Following the data check and platform comparison, the final sample included a total of $N = 392$ participants. See Table 2 in Appendix C for demographic information for the full sample and split by recruitment platform. The participants ranged in age from 20 to 88 years ($M = 45.84$, $SD = 15.79$). The sample consisted of 269 females (68.6%) and 123 males (31.4%). A majority of participants self-identified as White (77.1%), followed by Black or African American (11.2%), Asian (4.8%), Latinx (3.8%), multiracial (2.8%), and American Indian or Alaska Native (.3%).

Participants reported having a four-year college degree (39.0%), followed by a master's degree (26.0%), doctorate degree (7.7%), two-year college degree (7.7%), completing some college (7.7%), a professional degree (6.4%), and a high school diploma (5.6%). A majority of the participants were employed full time (61.2%).

Participants also reported having an annual income less than $10,000 (4.6%), between

$10,000 – $49,999 (33.5%), between $50,000 – $99,999 (36.2%), and above $100,000

(23.9%).

Participants reported being primarily heterosexual (84.4%), followed by bisexual

(7.7%), same-sex affiliated (4.3%), asexual (1.0%), and pansexual (0.8%), with 1.8%

preferring not to state. Further, participants reported being married (48.5%), single/never

married (17.6%), in a committed relationship (15.3%), casually dating (6.9%),

divorced/separated (6.6%), engaged (2.6%), and widowed (2.6%).

Clients reported working with their CPT for an average of 18.32 months (SD =

24.63, range = 0.25 – 156.00 months, median = 9.0 months), and reported completing a

median of 40 sessions (M = 101.74, SD = 178.45). The primary training context was in a

traditional/commercial gym (40.6%), followed by virtual/remote or social media (23.7%),

in-home (16.3%), group training (13.5%), and other (5.9%). Additionally, more females

reported working with male CPT (53.5%) than a female CPT (46.5%). Similarly, more

males reported working with a male CPT (73.2%) than a female CPT (26.8%).

Procedures

The data collection instrument was hosted on the Qualtrics survey platform with

MTurk and ResearchMatch crowdsourcing services used to recruit participants (see

Appendix D for recruitment message). Several Mechanical Turk postings were created

based on different platform qualification requirements due to initial low study enrollment.

First, Mechanical Turk participants could view the study if they had the Master's

qualification (n = 37). The second posting could be viewed if participants previously

reported exercising at least once per week (n = 26). The final posting could be viewed if

participants had a HIT approval rate above 90% ($n = 116$). For ResearchMatch, potential participants were first sent a brief email outlining the study's purpose and the qualifications of being over 18 years old, able to read and write in English, and currently be working with a CPT. If interested, the participants clicked "I'm interested," which alerted the author of their desire to participate. A follow-up email was sent to all of those who expressed interest that included the Qualtrics survey link.

Upon clicking the study link, participants were requested to read and agree to the informed consent form (see Appendix E). The survey consisted of Likert-style, slider, and open-ended questions and took on average 22.33 minutes ($SD = 8.55$) to complete. Upon completion and review, the author approved the Mechanical Turk participants' HIT for compensation. Upon completion of the survey, ResearchMatch participants were directed to a new survey to enter their email address for the e-gift card drawing. When the study concluded, the author utilized a random number generator to select 40 participants for a $15 Amazon e-gift card.

Measures

Means, standard deviations, skewness and kurtosis levels, and ranges for all study variables are provided in Table 3.

Table 3

Descriptive Statistics for All Study Variables (N = 392)

	α	M	SD	Skew	Kurtosis	Range
1. Motivation						
Identified regulation	.67	5.98	.80	-.68	.07	3.00 – 7.00
Intrinsic motivation	.92	5.45	1.29	-1.02	.77	1.00 – 7.00
Internal composite	.88	5.71	.94	-.76	.29	2.25 – 7.00
External regulation	.85	2.43	1.47	.86	-.36	1.00 – 6.50
Introjected regulation	.87	2.03	1.43	1.47	1.11	1.00 – 7.00
External composite	.91	2.23	1.38	1.19	.39	1.00 – 6.42
Full composite	.78	4.10	.74	.19	.60	1.80 – 6.47
2. Self-disclosure						
Positive/negative	.82	4.98	1.02	-.32	-.35	1.86 – 7.00
Control of depth	.84	3.50	1.29	.14	-.57	1.00 – 7.00
Honesty/accuracy	.84	5.38	.98	-.55	-.21	1.88 – 7.00
Intended disclosure	.77	5.52	.97	-1.10	2.53	1.00 – 7.00
Amount	.78	3.94	1.10	-.08	-.19	1.14 – 6.57
Full composite	.84	4.64	.62	-.13	.62	2.44 – 6.50
3. Closeness	-	3.65	1.81	.31	-1.04	1.00 – 7.00
4. Support						
Availability	.81	5.70	.96	-.63	.13	1.40 – 7.00
Intrusiveness	.60	3.10	1.00	.65	.02	1.00 – 6.40
Encouragement	.85	6.04	.83	-.95	.67	3.00 – 7.00
Support composite	.85	5.86	.84	-.78	.31	2.40 – 7.00
Full composite	.70	4.95	.47	-.61	2.42	2.47 – 6.27
5. Self-change						
Self-expansion	.79	5.84	.83	-.65	.25	3.00 – 7.00
Self-pruning	.64	5.01	1.01	-.61	1.07	1.00 – 7.00
6. Active listening						
Sensing	.82	5.17	1.13	-.61	.36	1.00 – 7.00
Processing	.69	5.25	1.16	-.64	.12	1.67 – 7.00
Responding	.84	5.78	.95	-1.01	1.97	1.00 – 7.00
Full composite	.90	5.41	.95	-.67	.56	1.35 – 7.00
7. Attachment						
Avoidance	.89	3.86	1.39	.01	-.80	1.00 – 7.00
Anxious	.93	2.37	1.29	1.17	.72	1.00 – 6.43
Security	.83	5.82	.82	-.67	.86	1.80 – 7.00
Full composite	.79	3.83	.70	.82	.92	2.47 – 6.32
8. Relationship length						
Original	-	18.32	24.63	2.78	9.30	.25 – 156.00
Log transformed	-	.95	.55	-.11	-.44	-.60 – 2.19
9. Age	-	45.84	15.78	.41	-.92	20.00 – 88.00

Note: Measures are presented on the left with subscales and composite measures aligned right. Closeness is a single-item measure. Relationship length was log transformed to correct high skewness and kurtosis values; relationship length range is provided in months prior to log transformation.

Motivation. Clients' motivation to hire a CPT was measured using a modified version of the Behavioural Regulation in Exercise Scale (BREQ; Mullan et al., 1997). The original survey items reflected motivation to engage in general exercise behaviors. However, for the current study, the survey items were modified to reflect participants' motivation to hire a CPT to assist with exercise. For example, "I exercise because other

people say I should" was modified to read "I hired my personal trainer because other people said I should." The BREQ consists of 19 items across five subscales that reflect identified regulation, intrinsic motivation, external regulation, introjected regulation, and amotivation. However, in the initial validation study (Mullan et al., 1997), the amotivation scale (4 items) was not statistically supported due to high skewness in the sample of those who exercised regularly. Thus, given that the current sample is composed of current fitness clients, amotivation was not included in the current study.

In line with previous research (Ingledew & Markland, 2008), average scores of items from the identified regulation (4 items; $M = 5.98$, $SD = .80$) and intrinsic motivation (4 items; $M = 5.45$, $SD = 1.29$) subscales were combined into one composite measure as both of these processes emanate from the self, reflecting the autonomous or *internal* reasons why an individual would hire a CPT (Deci & Ryan, 1985). Additionally, average scores of items from the external regulation (4 items; $M = 2.43$, $SD = 1.47$) and introjected regulation (3 items; $M = 2.03$, $SD = 1.43$) subscales were combined into one composite measure as both of these processes emanate from outside the self through perceived rewards, punishments, or pressure from others, reflecting controlled or *external* reasons why an individual would hire a CPT.

Participants responded to items using a 7-point Likert-scale ranging from 1 = *very untrue of me* to 7 = *very true of me*. Sample internal motivation items include, "I hired my CPT because exercise reduces my feelings of restlessness" (identified regulation), and "I hired my CPT because I get pleasure and satisfaction from participating in exercise" (intrinsic motivation). Sample external motivation items include, "I hired my CPT because I felt under pressure from my family/friends/partner to exercise" (external

regulation), and "I hired my CPT because my family/friends/partner tells me I'm a failure when I don't exercise regularly" (introjected regulation). The full BREQ showed acceptable reliability ($\alpha = .78$; $M = 4.10$, $SD = .74$) in the current sample, along with both the internal ($\alpha = .88$; $M = 5.71$, $SD = .94$) and external ($\alpha = .91$; $M = 2.23$, $SD = 1.38$) motivation composite measures ($r = -.19$, $p < .001$). Both composite measures showed acceptable levels of skew (-.76 and 1.19) and kurtosis (.29 and .39), respectively.

Self-disclosure. A modified version of the Revised Self-Disclosure Scale (RSDS; Wheeless, 1976) was utilized to capture participants' self-disclosure. The RSDS contains a total of 32 items across 5 subscales to reflect several disclosure characteristics, positive/negative (7 items), control of depth (6 items), honesty/accuracy (8 items), intended disclosure (4 items), and amount (7 items). Participants responded to items using a 7-point Likert-scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. The scale was modified by adding the phrase "to/with my personal trainer" to items to reflect how participants communicate and share information with their CPT. A sample positive/negative item includes, "I usually disclose negative things about myself to my personal trainer" ($\alpha = .82$, $M = 4.98$, $SD = 1.02$). A sample control of depth item incudes, "I often disclose intimate, personal things about myself to my personal trainer without hesitation" ($\alpha = .84$, $M = 3.50$, $SD = 1.29$). A sample honesty/accuracy item includes, "I am not always honest in my self-disclosures with my personal trainer" ($\alpha = .84$, $M = 5.38$, $SD = .98$). A sample intended disclosure item includes, "When I reveal my feelings about myself to my personal trainer, I consciously intend to do so" ($\alpha = .77$, $M = 5.52$, $SD = .97$). Finally, a sample amount item includes, "I often talk about myself with my personal trainer" ($\alpha = .78$, $M = 3.94$, $SD = 1.10$). A composite measure was created

(Young & DeGroot, 2019) to capture clients' general disclosure. The composite had strong reliability with $\alpha = .84$ ($M = 4.64$, $SD = .62$) and acceptable levels of skew (-.13) and kurtosis (.62) in the current sample.

Types and frequency of disclosure. To capture the types and frequency of disclosures occurring between clients and CPTs, participants were asked to report overall how often they discussed 14 conversational topics with their CPT on a sliding scale ranging from 0 = *never talked about that topic* to 100 = *this topic comes up in every session*. These topics included working out ($M = 84.43$, $SD = 20.24$), followed in order by diet or nutrition ($M = 64.08$, $SD = 29.96$); health issues or concerns ($M = 61.28$, $SD = 29.04$); hobbies or recreational activities ($M = 52.67$, $SD = 29.66$); COVID-19 ($M = 52.01$, $SD = 31.30$); work or career ($M = 48.16$, $SD = 29.49$); family or children ($M = 46.01$, $SD = 31.56$); news or current events including politics ($M = 43.45$, $SD = 30.82$); sports ($M = 37.66$, $SD = 33.05$); romantic relationships ($M = 23.22$, $SD = 27.62$); finance, money, or stocks ($M = 21.10$, $SD = 26.88$); religion ($M = 15.98$, $SD = 23.99$); alcohol or drugs ($M = 14.78$, $SD = 20.85$); and sex ($M = 12.66$, $SD = 23.24$). See Table 4 for means, standard deviations, and ranges for each topic.

Table 4

Descriptive Statistics for Conversational Topics (N = 392)

	M	SD	Range
1. Alcohol or drugs	14.78	20.85	0 – 99
2. COVID-19	52.01	31.30	0 – 100
3. Diet or nutrition	64.08	29.96	0 – 100
4. Family or children	46.01	31.56	0 – 100
5. Finance, money, or stocks	21.10	26.88	0 – 100
6. Health issues or concerns	61.28	29.04	0 – 100
7. Hobbies	52.67	29.66	0 – 100
8. News or current events	43.45	30.82	0 – 100
9. Religion	15.98	23.99	0 – 100
10. Romantic relationships	23.22	27.62	0 – 100
11. Sex	12.66	23.24	0 – 100
12. Sports	37.66	33.05	0 – 100
13. Work or career	48.16	29.49	0 – 100
14. Working out	84.43	20.24	0 – 100

Additionally, to capture the intimate disclosures that may take place between clients and their CPT, participants were asked to respond to the following open-ended question to provide a description of the most intimate or personal information they have shared with their CPT, "During the time that you have trained with your CPT, please provide details about the most intimate or personal information you have shared." All $N = 392$ participants provided a response. Responses ranged from one word (e.g., "Nothing.") to 103 words for a total of $N = 5,896$ words ($M = 15.60$, $SD = 14.94$).

Interpersonal closeness. Client-CPT closeness was measured through a modified version of the Inclusion of Other in Self Scale (IOS; Aron et al., 1992). This scale consists of seven overlapping circles that are meant to represent different degrees of the self and the other. Increasing the size of the overlap is representative of the blending of the resources, perspectives, and characteristics of the two individuals, such that the individual incorporates the other into themselves (Aron et al., 1991). Thus, the scale intends to capture both feeling and behaving close to another. Aron and colleagues (2013) outline the utility of the IOS through high validation scores of the subjective meanings of

the Venn diagrams (86%), as well as use across multiple contexts and samples including romantic relationships, cross-culturally, consumer brands, and religion. For the current study, the instructions focused specifically on feeling close, "Below you will see two circles, one labeled 'Self' and the other labeled 'Trainer.' Thinking about how close your relationship is with your CPT, please select the pair of overlapping circles that best depicts how close you feel to your CPT." The circles were the same size across all images and the amount of overlap was increased at a systematic rate to ensure consistency. The images were converted to a Likert-style scale with 1 = *no closeness* to 7 = *very close* to utilize the measure as an interval-level variable in the analyses. Given that this is a single item measure, reliability analyses were not possible, though participants reported a closeness level of $M = 3.65$ ($SD = 1.81$) with their CPT. Additionally, the measure had acceptable levels of skew (.31) and kurtosis (-1.04).

Support. A modified version of the Secure Base Characteristics Scale (SBCS; Feeney & Thrush, 2010) was utilized to capture participants' perceptions of their CPT's relational supportive characteristics. The SBCS contains 15 items across three subscales: availability, intrusiveness, and encouragement. Each subscale contains five items. Participants responded on a 7-point Likert-scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. The items were modified to reflect situations that would occur during training sessions. Sample items included, "I do not generally count on my personal trainer to be available to help out if I run into trouble when pursuing my personal fitness goals" (availability), "When I am exploring a new activity (for example, trying a new and challenging exercise), my personal trainer usually tries to get involved and do it with me"

(intrusiveness), and "My personal trainer usually encourages me to accept challenges and try new exercises" (encouragement).

For the current analysis, the decision was made to create a support composite measure utilizing the availability and encouragement subscales ($r = .77, p < .001$) to capture the CPT as a secure base of support during personal training. The intrusiveness subscale was not included as it displayed inadequate reliability within the current sample ($\alpha = .60; M = 3.10, SD = 1.00$). Perhaps, the current context of personal training influenced the intrusiveness subscale. The SBCS was originally created and measured within the context of marriage, where intrusiveness was conceptualized as disrupting or intruding on a partner's goal pursuits (Feeney & Thrush, 2010). However, this component may not be warranted and may have created some confusion within the current context, as evidenced through the low reliability. A CPT's primary job is to model exercises and help clients ensure proper form and movement (McAuley & Courneya, 1993; Weidner & Henning, 2002), often being actively involved throughout the session. Several of the intrusiveness items reflected CPTs' involvement in exercises, particularly during new and challenging exercises. Thus, the intrusiveness subscale requires further consideration depending on the context.

The full SBCS showed acceptable reliability in the current sample ($\alpha = .70; M = 4.95, SD = .47$), along with the availability subscale ($\alpha = .81; M = 5.70, SD = .96$), encouragement subscale ($\alpha = .85; M = 6.04, SD = .83$), and the composite support scale ($\alpha = .85; M = 5.86, SD = .84$). The composite support scale showed acceptable levels of skew (-.78) and kurtosis (.31).

Self-expansion. Self-expansion was measured through a modified version of the relational Self-Change Scale (Mattingly et al., 2014). The measure contains 12 items across 4 subscales: self-expansion, self-pruning, self-adulteration, and self-contraction. However, in the current analysis, self-adulteration and self-contraction are not utilized. Each subscale contains 3 items to reflect the participants' perception of self-change based on a specific relationship. Participants responded to items using a 7-point Likert-scale ranging from 1 = *not very much* to 7 = *very much*. The items were modified by adding "By training with my CPT" at the start of each item. Sample items included, "I have learned many great new things" (self-expansion) and "My bad habits have been diminished" (self-pruning). The self-expansion subscale showed acceptable reliability in the current sample $\alpha = .79$ ($M = 5.84$, $SD = .83$). However, the self-pruning subscale fell slightly below the standard reliability threshold ($\alpha = .64$; $M = 5.01$, $SD = 1.01$). Both the self-expansion and self-pruning subscales showed acceptable levels of skew (-.65 and -.61) and kurtosis (.25 and 1.07), respectively.

Active listening. Clients' perceptions of their CPT's active listening ability were measured using a modified version of the updated Active-Empathic Listening Scale (AELS; Bodie, 2011). The AELS contains a total of 11 items across three subscales. Participants respond to items using a 7-point Likert-scale ranging from 1 = *never or almost never true* to 7 = *always or almost always true*. The items were modified from general conversations to reflect the client's perception of their CPT's listening ability. Sample items include, "My personal trainer understands how I feel" (sensing; 4 items), "My personal trainer keeps track of the points that I make" (processing; 3 items), and "My personal trainer assures me that they are receptive to my ideas" (responding; 4

items). A composite measure was created (Manusov et al., 2018) to capture participants'

perceptions of their CPT's overall active listening ability. The full scale showed strong

reliability in the current sample (α = .90; *M* = 5.41, *SD* = .95), while the three subscales

showed acceptable reliability, α = .82 (sensing; *M* = 5.17, *SD* = 1.13), α = .69

(processing; *M* = 5.25, *SD* = 1.16), and α = .84 (responding; *M* = 5.78, *SD* = .95). The

full scale showed acceptable levels of skew (-.67) and kurtosis (.56).

Attachment. Clients' feeling of attachment with their CPT was measured using a

modified version of the Coach-Athlete Attachment Scale (CAAS; Davis & Jowett, 2013).

The CAAS contains a total of 19 items with three subscales to reflect an athlete's sense of

attachment with their coach, avoidance attachment (7 items), anxious attachment (7

items), and secure attachment (5 items). Participants responded to items using a 7-point

Likert-scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Low scores for the

avoidant and anxious subscales indicate higher attachment security, while higher scores

indicate lower attachment security with the athlete's coach. The items were modified by

changing "coach" to "personal trainer" to focus on the CPT-client relationship. Sample

items include, "I do not ask my personal trainer for advice and help" (avoidant

attachment), "I worry that my personal trainer does not respect me as much as I respect

him/her" (anxious attachment), and "I know I can rely on my personal trainer" (secure

attachment). The full scale showed acceptable reliability in the current sample (α = .79;

M = 3.83, *SD* = .70), along with all three subscales, avoidant attachment (α = .89; *M* =

3.86, *SD* = 1.39), anxious attachment (α = .93; *M* = 2.37, *SD* = 1.29), and secure

attachment (α = .83; *M* = 5.82, *SD* = .82). Further, all three subscales showed acceptable

levels of skewness and kurtosis with avoidant attachment skew (.01) and kurtosis (-.80),

anxious attachment skew (1.17) and kurtosis (.72), and secure attachment skew (-.67) and kurtosis (.86).

COVID-19. Finally, four questions were asked about if and how the COVID-19 pandemic impacted the CPT-client relationship. Specifically, participants were asked, "Has your training routine with your personal trainer been altered due to the COVID-19 pandemic?" If yes, they were asked to describe how the routine was altered in an open-ended question. The third question asked, "How motivated are you to continue working with your personal trainer while the pandemic continues?" Participants responded using a 5-point Likert-scale ranging from 1 = *not at all* to 5 = *extremely*. The final question asked participants, "What kind of support has your personal trainer offered you during the pandemic?" Participants were asked to select all that applied, including emotional ($n =$ 143, 36.5%), instrumental ($n = 275$, 70.2%), informational ($n = 249$, 63.5%), and companionship ($n = 132$, 33.7%), or no support ($n = 16$, 4.1%).

Control Variables

Control variables may impact the direction and strength of the outcome in quantitative analysis (Schjoedt & Sangboon, 2015). Typically, control variables are thought to be related to the analysis, such that extant factors in the sample may impact the outcome if not taken into consideration. Including control variables in the analysis allows for their potential effect to be known, which reduces the chance of error and makes the association between the predictor, moderator, and outcome variables clearer. There are several important variables to control in the current study, including clients' attachment style, the length of the client-CPT relationship, and the clients' age and sex.

As evidenced by the self-expansion model (Aron et al., 2013), an individual's attachment style may make them more or less receptive to establishing close relationships, which may affect their self-expansion experiences. For example, those with a secure attachment have an easier time connecting with others than those with an insecure attachment (Kumashiro & Arriaga, 2020). As such, participants' attachment to their CPT was controlled for on closeness in the analysis utilizing the CAAS (Davis & Jowett, 2013). Additionally, while self-expansion is thought to occur primarily in new relationships, it may also occur in established relationships as well (Aron et al., 1991; Aron et al., 2013). As such, the length of the client's relationship with their CPT was controlled for on closeness, self-expansion, and self-pruning in the present analyses. Participants reported working with their CPT for an average of 18.32 months ($SD =$ 24.63). Lastly, participants' age and sex were controlled. Depending on age, participants could be more internally or externally motivated to accomplish their training goals and may respond differently to their CPT's training tactics (Melton et al., 2011; Melton et al., 2008), which may impact their overall relationship with their CPT. For example, motivation may depend on the stage of life a participant is in, as human bodies change with age (Melton et al., 2011). Thus, age was controlled for on internal and external motivation. Similarly, participants' sex was controlled for on closeness, self-expansion, and self-pruning because men and women may experience different levels of comfortability and closeness with their CPT (Melton et al., 2008), which may impact their outcomes. Gender was not controlled for in the current analyses as all participants' sex and gender selections were identical.

Data Analysis

Upon further analysis of the data, there were $n = 26$ (6.6%) cases where the participant only provided a value, but did not provide a duration label (i.e., weeks or months) on their response when asked how long they had been training with their CPT. Previous research suggests that when missing data is less than approximately 5%, the impact may be insignificant (Jakobsen et al., 2017). However, participants also provided a value for the number of sessions they had with their CPT. Thus, for these $n = 26$ instances of a missing duration label, the number of sessions reported was compared to the duration value provided, in relation to other participants who reported the same number of sessions. For example, if a participant stated they had trained with their CPT 16 times and stated "4" in the length response, the label of "months" was added to the response, as other participants that indicated 16 sessions had a similar relationship length with their CPT. Further, it is likely that 16 sessions occurred within four months instead of four weeks, as clients typically work with their CPT once or twice per week (National Academy of Sports Medicine, 2018).

Next, data were tested for skewness and kurtosis to examine the data set's normality (see Table 3 above). The relationship length variable exhibited significant skew (2.78) and kurtosis (9.30), so a log transformation was conducted to correct these issues (Norris & Aroian, 2004). Reliability analyses for all scales and subscales were tested to ensure they were above the standard $\alpha > .70$ threshold (Nunnally, 1978). All scales met this criterion, except for the identified regulation subscale ($\alpha > .67$; 4 items) of the Behavioural Regulation in Exercise Scale (BREQ; Mullan et al., 1997), the intrusion subscale ($\alpha > .60$; 5 items) of the Secure Base Characteristics Scale (SBCS; Feeney &

Thrush, 2010), the self-pruning subscale ($\alpha > .64$; 3 items) of the Self-Change Scale (Mattingly et al., 2014), and the processing subscale ($\alpha > .69$; 3 items) of the Active-Empathic Listening Scale (AELS; Bodie, 2011). Perhaps, the reliability was lower on some of these scales due to a lower number of items, as reliability is a function of scale length (Tavakol & Dennick, 2011). However, Taber (2017) states that an alpha reliability between .64 to .85 has been deemed adequate, so all subscales except the intrusion subscale of the SBCS were retained for analyses.

The study hypotheses were tested utilizing the structural equation modeling technique of path analysis (Klem, 1995) using AMOS version 23.0 (Arbuckle, 2014). Path analysis examines a series of multiple regression equations to determine if the variables fit the proposed model. The structural equation modeling norm of having at least 10 times the number of participants as parameters to be estimated (Streiner, 2005) was met in this study with $N = 392$ participants and 35 parameters, an 11:1 participant-to-parameter ratio. The maximum likelihood model was used to estimate the non-standardized and standardized path coefficients. Additionally, direct effects for the model were estimated using the Beta (i.e., standardized regression) coefficient.

The path model was assessed using the Chi-square goodness of fit test and model fit indices. The Chi-square test statistic (χ^2) was assessed at the $\alpha = .05$ level, with a nonsignificant value indicating adequate model fit. Given that nonsignificant chi-square values are rare and sensitive to sample size, several other indices and standards were utilized to assess the proposed model's fit (Hooper et al., 2008), including comparative fit index (CFI), root mean square error of approximation (RMSEA), Tucker-Lewis index (TLI), and standardized root mean square residual (SRMR).

For the intimate open-response question, the author initially categorized all of the responses into several categories based on the general topic of disclosure, including relationships, health, small talk, open discussion, and a category for those participants that stated they did not disclose intimate information to their CPT. A female graduate research assistant (GRA), with no prior experience working with a CPT, then read over each response to determine if the response belonged in that category. When the GRA did not think the response fit the category ($n = 17$), she discussed it with the author until they both agreed on the proper category.

Next, three undergraduate research assistants (URAs) from the author's advanced research methods in communication course were recruited for further thematic analysis (Braun & Clarke, 2012) of responses. The URAs were two females and one male who had no prior history of working with a CPT. Prior to coding, the URAs met with the author for forty-five minutes to learn the coding process (Scharp & Sanders, 2018). During the meeting, the author coded three responses to demonstrate to the URAs how coding should be conducted. Then, the URAs each independently coded a subset of seven responses for themes. The author then openly-discussed the various themes uncovered by the URAs to gain consensus and ensure reliability. Each URA then received approximately 130 responses for further independent thematic coding.

The URAs developed nine unique themes based on 322 of the 392 responses (82.1%). However, 70 responses (17.9%) did not contain enough information to meaningfully place them into a theme. For example, participants reported disclosing about "politics" and "bank account." Upon receiving the URAs' themes, the author and GRA separately reviewed 60 responses (15.3%), six items from each of the nine themes

and six from the remaining responses, to determine the level of agreement. If they agreed

that the response fit within the URAs' themes, they designated a "0," while disagreement

with the theme was denoted with a "1." This process was done to calculate interrater

reliability among the author, GRA, and URAs using Cohen's kappa in SPSS (O'Connor

& Joffe, 2020). McHugh (2012) notes that a Cohen's kappa between .61 to .80 is

substantial or strong interrater agreement. Thus, in the current sample, there was strong

agreement between the author, GRA, and URAs judgement of open-response themes, $\kappa =$

.77, $p < .001$. Finally, the author and GRA further discussed each theme, developed

several sub-themes, provided a name and description for each (sub) theme, and

determined representative responses for each (Vaismoradi et al., 2016).

CHAPTER 4

RESULTS

Descriptive Statistics and Bivariate Correlations

While sex was controlled for in the model, sex differences among study variables were initially investigated using an independent samples *t*-test. These analyses were conducted as men and women often report different goals and reasons for hiring a CPT (Melton et al., 2008). Means, standard deviations, and ranges for key study variables split by sex are provided in Table 5. First, results revealed a significant difference between female and male internal motivation, $t(390) = 3.33$, $p < .01$, $d = .37$, where females reported significantly higher levels of internal motivation ($M = 5.82$, $SD = .93$) compared to males ($M = 5.48$, $SD = .93$). Second, results revealed a significant difference between female and male external motivation, albeit in the opposite direction, $t(197.98) = -4.70$, $p < .001$, $d = .54$, where males reported significantly higher levels of external motivation ($M = 2.77$, $SD = 1.53$) compared to females ($M = 2.02$, $SD = 1.24$). Third, there was a significant difference between the amount of support perceived, $t(204.20) = 5.94$, $p < .001$, $d = .66$, where females reported significantly higher amounts of perceived support from their CPT ($M = 6.04$, $SD = .76$) compared to males ($M = 5.49$, $SD = .90$). Fourth, results revealed a significant difference between experiences of self-expansion, $t(191.57) = 5.78$, $p < .001$, $d = .65$, where females reported significantly higher experiences of self-expansion ($M = 6.01$, $SD = .72$) compared to males ($M = 5.45$, $SD = .93$). Fifth, results revealed a significant difference between females' and males' perceptions of their CPT's active listening skills, $t(390) = 3.42$, $p < .01$, $d = .38$, where females reported significantly higher levels of their perception of their CPT's active listening skills ($M = 5.52$, $SD =$

.95) compared to males ($M = 5.17$, $SD = .91$). Finally, there were significant differences between females and males' levels of feelings of attachment anxiety, $t(209.67) = -3.67$, $p < .001$, $d = .41$, and attachment security, $t(390) = 3.38$, $p < .01$, $d = .36$. Specifically, males reported higher levels of attachment anxiety ($M = 2.74$, $SD = 1.39$) with their CPT compared to females ($M = 2.21$, $SD = 1.21$), while females reported higher levels of attachment security ($M = 5.91$, $SD = .79$) with their CPT compared to males ($M = 5.62$, $SD = .84$).

Table 5
Descriptive Statistics for Key Study Variables Split by Sex (N = 392)

	M_M	SD_M	M_F	SD_F	Range
1. Internal motivation	5.48	.93	**5.82***	.93	2.25 – 7.00
2. External motivation	**2.77****	1.53	2.02	1.24	1.00 – 6.42
3. Self-disclosure	4.57	.63	4.67	.62	2.44 – 6.50
4. Closeness	3.86	1.80	3.56	1.81	1.00 – 7.00
5. Support	5.49	.90	**6.04****	.76	2.40 – 7.00
6. Self-expansion	5.45	.93	**6.01****	.72	3.00 – 7.00
7. Self-pruning	4.89	.98	5.07	1.03	1.00 – 7.00
8. Active listening	5.17	.91	**5.52***	.95	1.35 – 7.00
9. Attachment avoidance	3.79	1.34	3.90	1.42	1.00 – 7.00
10. Attachment anxiety	**2.74****	1.39	2.21	1.21	1.00 – 6.43
11. Attachment security	5.62	.84	**5.91***	.79	1.80 – 7.00
12. Relationship length	.91	.49	.97	.57	0.25 – 156.00
13. Age	45.35	16.28	46.07	15.57	20.00 – 88.00

Note: M subscript denotes male values, F subscript denotes female values. Closeness is a single-item measure. Relationship length was log transformed to correct high skewness and kurtosis values; relationship length range is provided in months prior to log transformation. Bold values represent significant *t*-test between females and males. * $p < .01$, ** $p < .001$.

Correlations among study variables are presented in Table 6, and correlations split by sex are reported in Table 7. In line with Hypothesis 1, internal motivation and self-disclosure were positively correlated, $r(390) = .29$, $p < .001$, representing a moderate correlation. However, contrary to predictions, external motivation was negatively correlated with self-disclosure, $r(390) = -.20$, $p < .001$, representing a small association. In line with Hypothesis 2, internal motivation and experiences of self-expansion were positively correlated, $r(390) = .27$, $p < .001$. However, contrary to predictions, external

motivation and self-expansion were negatively correlated, $r(390) = -.21$, $p < .001$, representing a small association.

Table 6
Bivariate Correlations for Key Study Variables (N = 392)

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Internal motivation	-												
2. External motivation	-.19***	-											
3. Self-disclosure	.29***	-.20***	-										
4. Closeness	.13*	.22***	.32***	-									
5. Support	.23***	-.50***	.38***	.01	-								
6. Self-expansion	.27***	-.21***	.36***	.14**	.53***	-							
7. Self-pruning	.16**	-.02	.12*	.17**	.21***	.47***	-						
8. Active listening	.25***	-.08	.46***	.35***	.41***	.41***	.23***	-					
9. Attachment avoidance	-.11*	.15**	-.48***	-.33***	-.35***	-.32***	-.14**	-.34***	-				
10. Attachment anxiety	-.25***	.61***	-.34***	.11*	-.58***	-.28***	-.01	-.26***	.28***	-			
11. Attachment security	.28***	-.19***	.51***	.38***	.54***	.53***	.23***	.60***	-.39***	-.45***	-		
12. Relationship length	.17**	-.13*	.22***	.20***	.20***	.06	.03	.20***	-.17**	-.19***	.28***	-	
13. Age	.07	-.28***	.11*	-.03	.14**	-.02	-.06	.02	.01	-.20***	.13**	.32***	-

Note: Closeness is a single-item measure. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 7
Bivariate Correlations for Key Study Variables Split by Sex (N = 392)

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Internal motivation	**-.17**	-.19*	.36***	.25**	.30**	.33***	.17	.38***	-.27**	-.31***	.39***	.19*	.11
2. External motivation	-.15*	**.25***	-.15	.30**	-.48***	-.13	.02	.02	.18*	.60***	-.14	-.06	-.23*
3. Self-disclosure	.25***	-.20**	**-.08**	.36***	.44***	.42***	.29**	.46***	-.52***	-.29**	.50***	.20*	.12
4. Closeness	.10	.15*	.31***	**.08**	.03	.23**	.24**	.37***	-.30**	.09	.40***	.17	-.25**
5. Support	.13*	-.45***	.34***	.03	**-.31***	.48***	.19*	.36***	-.39***	-.60***	.57***	.22*	.20*
6. Self-expansion	.18**	-.15*	.31***	.15*	.49***	**-.31***	.54***	.42***	-.49***	-.25**	.56***	.00	-.03
7. Self-pruning	.14*	-.00	.04	.15*	.20**	.44***	**-.08**	.34***	-.34***	.02	.29**	.01	-.16
8. Active listening	.16**	-.07	.45***	.38***	.39***	.37***	.16**	**-.17**	-.28**	-.16	.60***	.17	-.06
9. Attachment avoidance	-.05	.16**	-.47***	-.34***	-.38***	-.27**	-.06	-.39***	**-.04**	.29**	-.36***	-.13	-.05
10. Attachment anxiety	-.18**	.59***	-.35***	.09	-.53***	-.23**	.01	-.28***	.30***	**.19***	-.39***	-.17	-.23**
11. Attachment security	.19**	-.16**	.50***	.40***	.49***	.48***	.19**	.58***	-.42***	-.45***	**-.17**	.20*	.05
12. Relationship length	.15*	-.15*	.23***	.21**	.18**	.08	.04	.20**	-.18**	-.19**	.31***	**-.05**	.35***
13. Age	.05	-.31***	.10	.07	.11	-.03	-.02	.05	.04	-.18**	.17**	.31***	**-.02**

Note: Female reports are below the diagonal, male reports are above the diagonal. The bold diagonal indicates sex-by-variable correlation. Closeness is a single-item measure. * $p < .05$, ** $p < .01$, *** $p < .001$.

In support of Hypothesis 3, participants' self-disclosure was positively correlated with their level of perceived closeness to their CPT, $r(390) = .32$, $p < .001$, representing a moderate correlation. Similarly, in support of Hypothesis 4, participants' self-disclosure was also positively correlated with the amount of perceived support from their CPT, $r(390) = .38$, $p < .001$, representing a moderate correlation.

In line with Hypothesis 5, participants' level of perceived closeness to their CPT was positively correlated with their experiences of self-expansion, $r(390) = .14$, $p = .004$,

representing a weak association. Contrary to Hypothesis 6, participants' level of perceived closeness to their CPT was not significantly positively correlated with their perceptions of support from their CPT, $r(390) = .01$, $p = .89$. In line with Hypothesis 7, participants' perceptions of support from their CPT was positively correlated with their experiences of self-expansion, $r(390) = .53$, $p < .001$, representing a strong correlation.

In support of Hypothesis 8, participants' level of internal motivation was positively associated with their experiences of self-pruning, $r(390) = .16$, $p = .002$, representing a weak association. Contrary to predictions, participants' level of external motivation was not significantly positively correlated with their experiences of self-pruning, $r(390) = -.02$, $p = .78$. However, in line with Hypothesis 9, participants' level of perceived closeness to their CPT was positively correlated with their experiences of self-pruning, $r(390) = .17$, $p = .001$, representing a weak association. Additionally, in line with Hypothesis 10, participants' perceptions of support from their CPT was positively correlated with their experiences of self-pruning, $r(390) = .21$, $p < .001$, representing a weak association.

In support of Hypothesis 11, participants' perceptions of their CPT's active listening skills were positively correlated with their self-disclosure, $r(390) = .46$, $p < .001$, representing a moderate to strong association. Similarly, participants' perceptions of their CPT's active listening skills were positively correlated with their level of perceived closeness to their CPT, $r(390) = .35$, $p < .001$, representing a moderate correlation.

Path Analysis

Based on recent research on the self-expansion model (Mattingly et al., 2020), the study's hypotheses sought to establish a model for fitness clients' self-expansion process

through working with their CPT (see Figure 1). Given the goal of identifying potential

causal paths with the use of cross-sectional data, along with the use of measured

variables, path analysis was an appropriate method of investigation. As such, path

analysis was conducted on AMOS version 23.0 (Arbuckle, 2014) utilizing the standard

maximum likelihood estimation. First, the assumptions for path analysis are provided.

Next, after running the analysis, an overview of the model fit indices (Hooper et al.,

2008) and the direct estimates between the variables in the model are presented (see

Figure 2). Finally, two re-specification attempts are discussed, as they were conducted in

attempt to improve model fit.

Figure 1
Proposed path model.
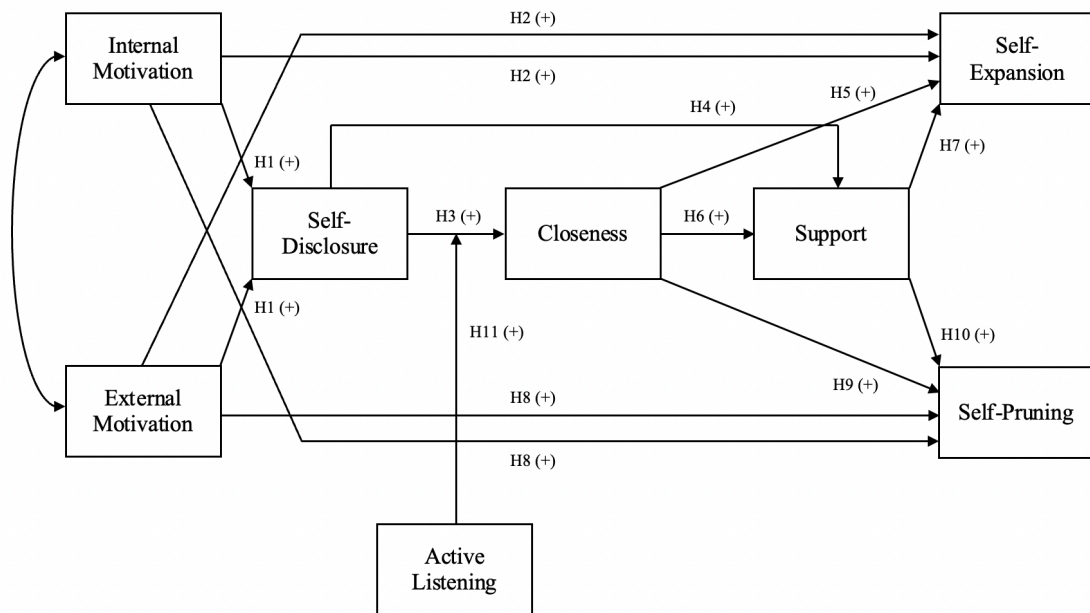
Figure 2
Path Model with Standardized Coefficients.
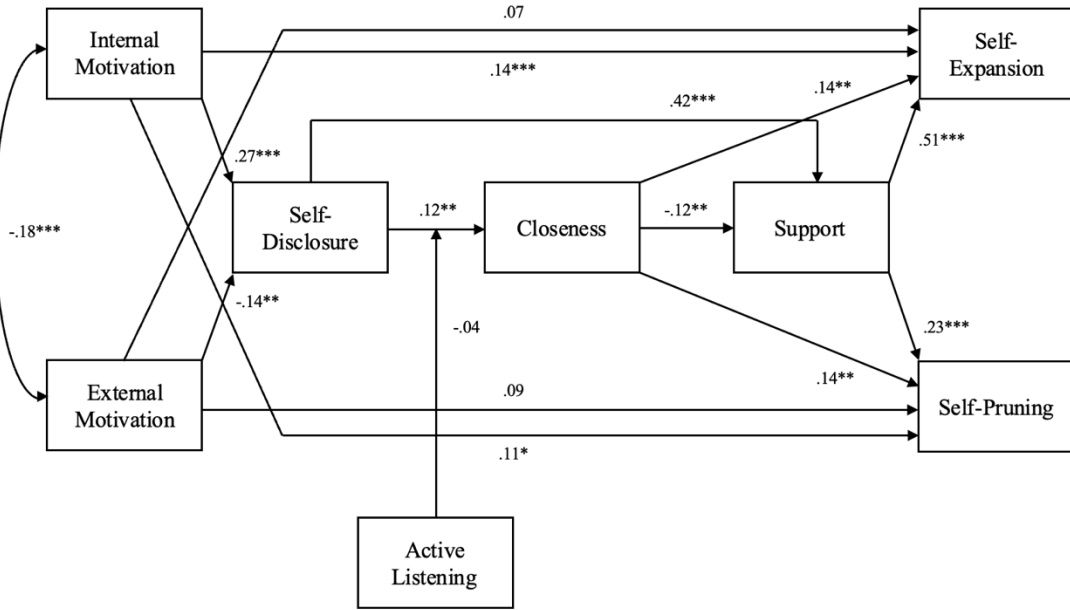
Note: Standardized coefficients are shown for each path. * $p < .05$, ** $p < .01$, *** $p < .001$.

Assumptions. Several assumptions were assessed prior to running the path

analysis to examine the study's hypotheses. First, tests for univariate outliers were

conducted to determine if the data modeled a normal distribution. Results revealed no

univariate outliers and data were normally distributed (skew < 2, kurtosis < 3; Westfall &

Henning, 2013). Thus, the assumption of univariate normality was met. However, the

initial path analysis output revealed eight multivariate outliers by calculating

Mahalanobis distances and comparing them with a χ^2 distribution (Newton & Rudestam,

2012). Therefore, these eight cases were removed, and the model was re-run. A second

examination of the Mahalanobis distances then suggested there were four additional

outliers. These four cases were removed, and the model was re-run. A third examination

suggested two additional multivariate outliers, which were removed and the model re-

run. A comparison of the model fit indices and path coefficients between the original full

sample and the sample with the 14 multivariate outliers removed did not reveal a meaningful difference; in most cases, less than a .01 difference. Thus, the original sample (N = 392) was retained for analyses to help retain statistical power and remain above the recommended 10:1 participant-to-parameter ratio (Streiner, 2005).

Next, the assumption of multicollinearity was examined utilizing the variance inflation factor (VIF) and tolerance. Menard (2002) suggests that a VIF above 5 and tolerance below .20 are indicative of multicollinearity. A review of these values displayed no VIF values above 2.0 and no tolerance levels below .50. Thus, the assumption of collinearity was met, and multicollinearity was unlikely. Next, the sample size assumption was met, as the number of number of participants should be at least ten times the number of estimated parameters, and above 200 participants (Kline, 1998; Streiner, 2005). The number of participants was N = 392 and the number of parameters estimated was 35, an 11:1 ratio.

Model fit. A Chi-square goodness of fit test was first analyzed to determine if the proposed path model adequately fit the data (see Figure 1 above). A non-significant value indicates adequate model fit, while a significant value *may* indicate poor model fit (Hooper et al., 2008). However, this test is particularly sensitive to sample size and often returns a significant result with larger samples. The results indicated a significant value and, thus, poor model fit for the Chi-square goodness of fit test, χ^2 (49) = 699.33, $p <$ .001.

As the Chi-square goodness of fit test is sensitive to sample size, other model fit indices were inspected to determine adequate model fit, including CFI, RMSEA, TLI, and SRMR. Hooper and colleagues (2008) suggest that CFI values above .90 indicate

71

acceptable model fit and values above .95 indicate good model fit. For RMSEA, values

below .10 indicate acceptable model fit and values below .08 indicate excellent model fit.

For TLI, values above .95 indicate good model fit. For SRMR, values below .08 indicate

adequate model fit and values below .05 indicate excellent model fit. The values of each

in the current model were as follows: CFI = .47, RMSEA = .18, TLI = .16, and SRMR =

.18, indicative of poor model fit.

Control variable direct effects. Several control variables were included in the

analyses, including participants' attachment, age, sex, and relationship length (see Table

8). First, participants' level of attachment avoidance, attachment anxiety, and attachment

security were controlled for their potential associations with perceptions of closeness to

their CPT. Participants attachment avoidance (ß = -.19, $p < .001$), anxiety (ß = .38, $p <$

.001), and security (ß = .32, $p < .001$) were significantly associated with perceptions of

closeness. Results suggest that age did not significantly predict internal motivation, ß =

.07, $p = .172$; however, age was significantly negatively associated with external

motivation, ß = -.28, $p < .001$.

Table 8
Regression Coefficients for Control Variables in Path Model (N = 392)

Parameter Estimate	Unstandardized (SE)	Standardized	p
Internal motivation ← Age	0.00 (0.00)	0.07	.17
External motivation ← Age	-0.02 (0.00)	-0.28	< .001
Closeness ← Attachment avoidance	-0.24 (0.06)	-0.19	< .001
Closeness ← Attachment anxiety	0.53 (0.07)	0.38	< .001
Closeness ← Attachment security	0.70 (0.13)	0.32	< .001
Closeness ← Relationship length	0.32 (0.14)	0.10	.03
Closeness ← Sex	0.35 (0.17)	0.09	.04
Self-expansion ← Relationship length	-0.13 (0.06)	-0.09	.04
Self-expansion ← Sex	-0.29 (0.07)	-0.16	< .001
Self-pruning ← Relationship length	-0.09 (0.09)	-0.05	.35
Self-pruning ← Sex	-0.07 (0.11)	-0.03	.54

Results also suggest that sex was significantly associated with perceptions of closeness, $\beta = .09$, $p = .04$; there was a mean difference of .09 between men and women's perceptions of closeness with their CPT. Sex was also significantly associated with experiences of self-expansion, $\beta = -.16$, $p < .001$; there was a mean difference of -.16 between men and women's experiences of self-expansion. Additionally, sex was not significantly associated with reported of self-pruning, $\beta = -.03$, $p = .54$, suggesting there is no association between participants' sex and reported self-pruning.

Finally, participants' relationship length was significantly associated with perceptions of closeness, $\beta = .10$, $p = .03$. Relationship length was also significantly associated with reported self-expansion, $\beta = -.09$, $p = .04$. However, relationship length was not significantly associated with reported self-pruning, $\beta = -.05$, $p = .35$, suggesting there is no association between relationship length and reported self-pruning.

Path model direct effects. Hypothesis 1 predicted that clients' level of internal motivation would have a larger (positive) effect on their self-disclosure compared to their level of external motivation. Results revealed that participants' level of internal motivation had a significant effect on their self-disclosure, $\beta = .27$, $p < .001$, which suggests higher levels of internal motivation were associated with higher self-disclosure. Conversely, results revealed that participants' level of external motivation had a significant effect on their self-disclosure, $\beta = -.14$, $p = .003$, which suggests higher levels of external motivation were associated with lower self-disclosure. A follow-up analysis of the 95% confidence intervals of the standardized coefficients for internal [.165, .373] and external [-.243, -.050] motivation displayed no overlap (Cumming, 2009). As such, Hypothesis 1 was supported.

73

Hypothesis 2 predicted that clients' level of internal motivation would have a larger (positive) effect on their experiences of self-expansion compared to their level of external motivation. Results revealed that participants' level of internal motivation had a significant effect on their experiences of self-expansion, ß = .14, $p < .001$, which suggests higher levels of internal motivation were associated with higher experiences of self-expansion. Conversely, results revealed that participants' level of external motivation did not have a significant effect on their experiences of self-expansion, ß = .07, $p = .10$, which suggests there is no association between external motivation and experiences of self-expansion. A follow-up analysis of the 95% confidence intervals of the standardized coefficients for internal [.051, .209] and external [-.019, .099] motivation displayed significant overlap (Cumming, 2009). Thus, Hypothesis 2 was not supported.

Hypothesis 3 predicted that clients' self-disclosure would positively predict their level of perceived closeness with their CPT. Results revealed that participants' self-disclosure had a significant positive effect on their level of perceived closeness, ß = .12, $p = .004$, such that higher self-disclosure was associated with higher levels of perceptions of closeness. Therefore, Hypothesis 3 was supported.

Hypothesis 4 predicted that clients' self-disclosure would positively predict their perceptions of support from their CPT. Results revealed that participants' self-disclosure had a significant positive effect on their perceptions of support, ß = .42, $p < .001$, which suggests that higher self-disclosure was associated with higher levels of perceptions of support. As such, Hypothesis 4 was supported.

Hypothesis 5 predicted that clients' level of perceived closeness with their CPT would positively predict their experiences of self-expansion. Results revealed that

participants' level of perceived closeness had a significant positive effect on their experiences of self-expansion, ß = .14, p = .001, suggesting that higher levels of perceived closeness were associated with higher levels of experiences of self-expansion. Thus, Hypothesis 5 was supported.

Hypothesis 6 predicted that clients' level of perceived closeness with their CPT would positively predict their perceptions of support from their CPT. Results revealed that participants' level of perceived closeness had a significant negative effect on their perceptions of support, ß = -.12, p = .008, which suggests that higher levels of perceived closeness were associated with lower levels of perceived support. Therefore, Hypothesis 6 was not supported.

Hypothesis 7 predicted that clients' perceptions of support from their CPT would positively predict their experiences of self-expansion. Results revealed that participants' perceptions of support had a significant positive effect on their experiences of self-expansion, ß = .51, p < .001, which suggests that higher levels of perceived support were associated with higher experiences of self-expansion. As such, Hypothesis 7 was supported.

Hypothesis 8 predicted that clients' level of internal motivation would have a larger (positive) effect on their experiences of self-pruning compared to their level of external motivation. Results revealed that participants level of internal motivation had a significant positive effect on their experiences of self-pruning, ß = .11, p = .03, suggesting that higher levels of internal motivation were associated with higher experiences of self-pruning. However, results revealed that participants' level of external motivation was not significant predictor of their experiences of self-pruning, ß = .09, p =

.06, suggesting there was no association between external motivation and experiences of self-pruning. A follow-up analysis of the 95% confidence intervals of the standardized coefficients for internal [.022, .218] and external [-.009, .149] motivation displayed significant overlap (Cumming, 2009). Therefore, Hypothesis 8 was not supported.

Hypothesis 9 predicted that clients' level of perceived closeness with their CPT would positively predict their experiences of self-pruning. Results revealed that participants' level of perceived closeness had a significant positive effect on their experiences of self-pruning, $\beta = .14$, $p = .005$, which suggests that higher levels of perceptions of closeness were associated with higher experiences of self-pruning. Therefore, Hypothesis 9 was supported.

Hypothesis 10 predicted that clients' perceptions of support from their CPT would positively predict their experiences of self-pruning. Results revealed that participants' perceptions of support had a significant positive effect on their experiences of self-pruning, $\beta = .23$, $p < .001$, which suggests that higher levels of perceptions of support were associated with higher experiences of self-pruning. As such, Hypothesis 10 was supported.

Moderation. Hypothesis 11 predicted that clients' perceptions of their CPT's active listening skills would moderate the (positive) association between their self-disclosure and perceived closeness with their CPT. Moderation was evaluated through the use of a mean-centered interaction term composed of self-disclosure and active listening (Becker et al., 2018). Results revealed that perceptions of active listening did not significantly moderate the association between self-disclosure and perceptions of closeness, $\beta = -.04$, $p = .40$. Thus, Hypothesis 11 was not supported. See Figure 2 above

for the model with standardized coefficients and Table 9 for unstandardized and

standardized coefficients and *p*-values for direct regression paths.

Table 9
*Regression Coefficients for Path Variables in Path Model* (*N* = 392)

Parameter Estimate	Unstandardized (SE)	Standardized	*p*
Self-expansion ← Internal motivation	0.13 (0.04)	0.14	< .001
Self-pruning ← Internal motivation	0.12 (0.05)	0.11	.03
Self-disclosure ← Internal motivation	0.18 (0.03)	0.27	< .001
Self-expansion ← External motivation	0.04 (0.03)	0.07	.10
Self-pruning ← External motivation	0.07 (0.04)	0.09	.06
Self-disclosure ← External motivation	-0.07 (0.02)	-0.14	.003
Closeness ← Self-disclosure	0.35 (0.12)	0.12	.004
Support ← Self-disclosure	0.57 (0.06)	0.42	< .001
Support ← Closeness	-0.06 (0.02)	-0.12	.008
Self-expansion ← Closeness	0.06 (0.02)	0.14	.001
Self-pruning ← Closeness	0.08 (0.03)	0.14	.005
Self-expansion ← Support	0.50 (0.04)	0.51	< .001
Self-pruning ← Support	0.28 (0.06)	0.23	< .001
Closeness ← Active listening	0.26 (0.10)	0.14	.01
Closeness ← Self-disclosure : Active listening	-0.11 (0.13)	-0.04	.40

Model re-specification. Given the poor model fit, Chi-square goodness of fit test,

χ^2 (49) = 699.33, *p* < .001, CFI = .47, RMSEA = .18, TLI = .16, and SRMR = .18, re-

specification of the model was performed. Re-specification is typically performed by

either adding or deleting paths when theoretically and statistically supported (Shook et

al., 2004). This process can help simplify complex models by determining the important

factors and paths in the model building process. Thus, the modification indices were

examined to determine the software's suggestions for improving model fit. Based on the

data and modification indices, two different re-specifications were attempted.

The first re-specification attempted to correct for attenuation of measurement

error (see Figure 3). When conducting path analysis, manifest (measured) variables are

assumed to have perfect measurement reliability, void of error (Bollen, 1989). However,

SEM is able to account for the measurement error by utilizing factors composed of

multiple indicators and error terms. Reducing the level of error is beneficial, as it allows

for more accurate and larger estimations of path coefficients and population parameters, whereas higher levels of measurement unreliability produce an attenuation effect, reducing the model estimations.

Figure 3
Path Model with Standardized Coefficients for Attenuation Model.
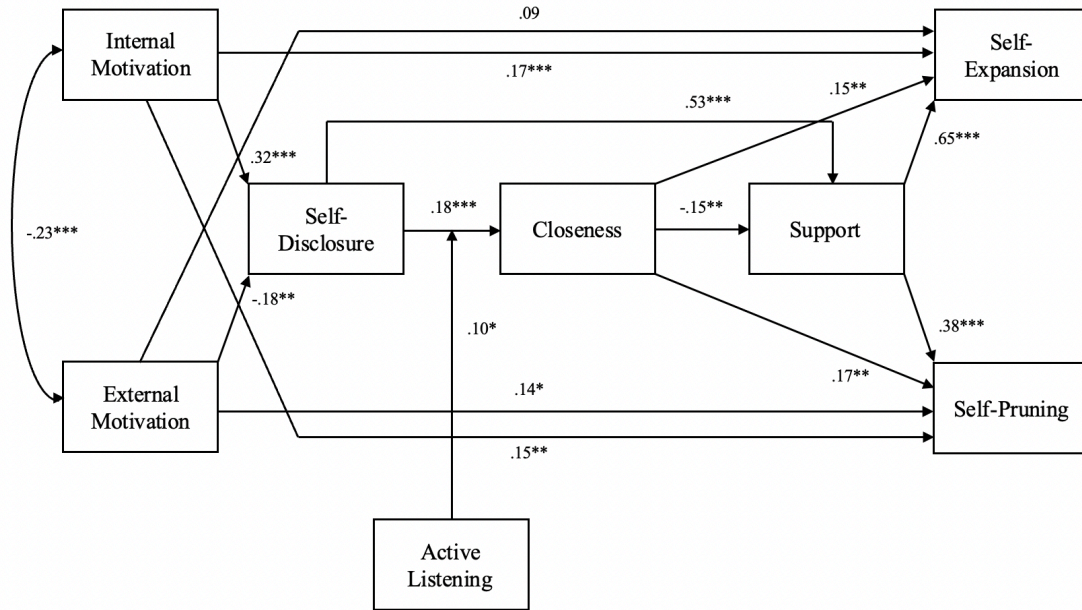
Note: Standardized coefficients are shown for each path. * $p < .05$, ** $p < .01$, *** $p < .001$.

To complete this process in AMOS, latent (unobserved) variables were added with a single indicator for each of the manifest variables (composite measures). Next, the measurement error variance of each manifest variable was computed by subtracting the reliability coefficient (Cronbach's alpha) from 1.0, then multiplying by the variance of the manifest variable. The outcome of the equation was used to fix the error variance for that particular manifest variable to account for the estimated error associated with the composite measure (Schumacker & Lomax, 2010). This process was completed for all scales, except for the closeness measure, as it was a single-item measure where reliability cannot be computed. Then, each regression path from the measurement error and from

78

the latent variable to the manifest variable was fixed to 1.0 to maintain the structural model estimations. Overall, this process permits the variance in the latent variable to reflect the systematic variance associated with the measurement of the construct, while the error terms capture the measurement error portion of the variance in terms of the measure. The outcome should correct each measure for unreliability to improve the correlations and estimates of the path coefficients by building measurement error into the model (Fan, 2003). As such, several paths were added to correlate the produced error terms.

Upon completing this process, new model fit indices still revealed poor model fit. The Chi-squared goodness of fit test, χ^2 (35) = 534.90, $p < .001$, still displayed inadequate model fit. Analysis of the other model fit indices indicated also displayed poor model fit, CFI = .86, RMSEA = .19, TLI = .58; AMOS did not provide the SRMR in the plug-in box.

The second re-specification attempted to improve model fit by removing nonsignificant variables and paths (see Figure 4). Specifically, external motivation was removed as the original self-expansion theory denotes that individuals have an *inherent* motivation to self-expand (Aron et al., 2013). As expanded upon further in the discussion section, inherent motivation should potentially be modified to internal motivation, as motivation likely stems from some internal source (Hughes et al., 2019; Mattingly et al., 2012). While external motivation may exist within the current context, it was not shown to be a significant predictor of self-expansion or self-pruning within this sample in the original model. Next, active listening was removed as the moderation of the effect between self-disclosure and closeness was not significant. Further, the self-pruning

variable was removed for two reasons. First, the original self-expansion model did not posit addition through subtraction as suggested by self-pruning (Aron & Aron, 1996). Second, the self-pruning subscale produced an $\alpha = .64$, which was below the standard acceptable reliability threshold of .70 (Nunnally, 1978). Finally, age was removed as it did not significantly predict internal motivation as hypothesized.

Figure 4
Path Model with Standardized Coefficients for Respecified Model.
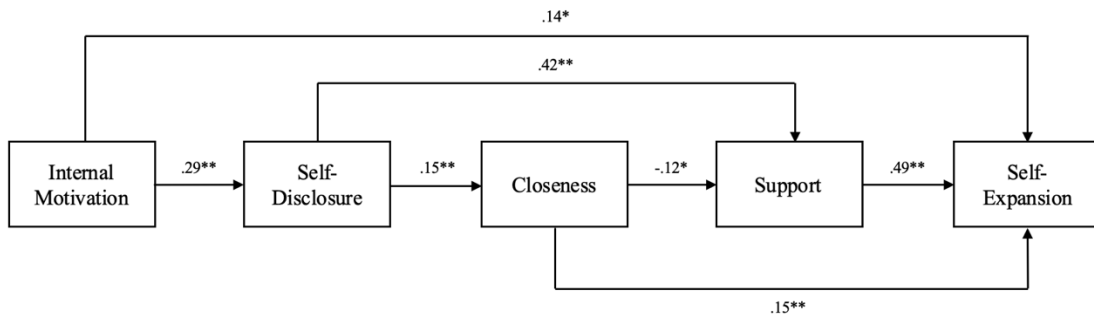
Note: Standardized coefficients are shown for each path. * $p < .01$, ** $p < .001$.

For the respecified model, the Chi-square goodness of fit test was significant, χ^2 (16) = 404.75, $p < .001$, suggesting poor model fit. Analysis of the other model fit indices, CFI = .51, RMSEA = .25, TLI = .09, and SRMR = .18, indicated inadequate model fit. Thus, similar to the measurement attenuation re-specification, the simplified model also did not fit the data. See Table 10 for model fit indices for the original, attenuation, and re-specified models.

Table 10

Model Fit Indices for the Original Path Model and Two Re-specification Attempts

	df	χ^2	p	CFI	RMSEA	TLI	SRMR
Original Model	49	699.33	< .001	.47	.18	.16	.18
Attenuation Model	35	534.90	< .001	.86	.19	.58	-
Respecified Model	16	404.75	< .001	.51	.25	.09	.18

Note: SRMR was not provided on AMOS plug-in output for the attenuation model.

Intimate Disclosures

Research question 1 asked, what information do clients disclose to their CPT? Participants responded to the prompt, "During the time that you have trained with your CPT, please provide details about the most intimate or personal information you have shared." Through thematic analysis, nine themes were identified, including: body dysmorphia, loss and grief, mental health, personal relationships, physical health, professionalism, support seeking, trainer sharing, and trust. Further, several sub-themes emerged that further described the details that participants shared during their disclosures with their CPT. See Table 11 in Appendix F for a list of frequencies of themes, sub-themes, and example participant responses. All names presented in the sample responses are pseudonyms to protect participants' privacy. Additionally, participants' age, gender, length of relationship with their CPT, and their perception of their CPT's gender identity are provided after each sample response.

Body dysmorphia. One theme that emerged encapsulates participants' perceptions of their body flaws and their struggle to cope with these negative thoughts, reminiscent of body dysmorphia (Vashi, 2016). Several participants ($n = 13$) discussed their struggle with their body image. Specifically, eating disorders were mentioned

numerous times, with one participant reporting, "The most intimate or personal information that I have shared with Kurt was about having an eating disorder in college and its physical, mental and emotional effects on me" (29-year-old female training for 6 months with a male CPT). These personal struggles are not only physical, but they can also take a mental and emotional toll on those individuals. The effect may be so severe in some cases that another participant reported their most intimate disclosure was, "My desire for plastic surgery" (54-year-old female training for 36 months with a female CPT). Perhaps, the participants felt more comfortable disclosing their body image issues and eating disorders to their CPT based on the context, but one participant reported, "I don't usually talk about my weight to anyone" (45-year-old female training for 14 months with a female CPT). As described, these participants have a high concern for their physical appearance, and may be hopeful of a body transformation through working with their CPT.

Loss and grief. This theme describes the sharing of the passing of participants' loved ones, often due to illness or disease, and how the participants attempt to cope with said loss ($n = 18$). Often, the discussions concerned loss of one or both of the participants' parents, such that one individual reported, "We talked about the death of my mother and father" (36-year-old female training for 82 months with a male CPT). For some participants, the loss of loved ones was accompanied by grief, which for one participant manifest itself in depressive symptoms and weight gain, "I have discussed my husband and father's deaths. I was very depressed with both and used to weight [sic] 240 lbs. - now 180 lbs. [I'm] Working on myself" (72-year-old female training for 26 months with a female CPT). Often, clients likely felt comfortable sharing this information with

their CPT because their CPT has also experienced similar loss, "I probably would say this is a discussion about my dad's cancer . . . She has a relative that recently passed from cancer" (39-year-old female training for 8 months with a female CPT). As demonstrated through these descriptions, these participants expressed how difficult experiencing loss can be.

Mental health. This theme captures participants' struggles with mental health, including issues such as stress, anxiety, depression, bipolar disorder, self-esteem, and obsessive-compulsive disorder ($n = 26$). These issues manifest themselves through the sub-themes of fears ($n = 6$) and insecurities ($n = 20$). Regarding fears, some clients experienced fear for their own decline in ability, "My fears of not being able to keep up with everyone else when I get old. I was really worried that I physically might deteriorate worse then [sic] others if I don't start taking care of my health now" (25-year-old female training for 8 months with a male CPT). For others, there was a fear about the well-being of those close to them, "The fear and terror that accompanied my wife's breast cancer diagnosis" (66-year-old male training for 18 months with a female CPT). Regarding insecurities, some clients expressed an overall doubtful feeling of themselves, "Mostly just how I feel negatively about myself and that I eat my emotions and how to cope differently as to not sabotage my health goals" (46-year-old female training for 36 months with a male CPT). However, other clients chose to share specific perceived flaws, such as a "shy bladder" (53-year-old male training for 102 months with a female CPT) and "stomach skin that is sagging from growing old" (51-year-old female training for 7 months with a male CPT). Through these personal disclosures, it becomes clear that

many clients are experiencing a host of mental health challenges while they are working to improve their physical health through personal training.

 Personal relationships. This theme illustrates a wide range of relationship information and problems that participants were experiencing within their family and romantic relationships ($n = 98$). Some clients referred to the strain felt within their families ($n = 41$). For example, one client reported having issues since having children, "Just that I felt like I had not been myself since having kids. Something that a lot of my family and friends do not even know" (32-year-old female training for 12 months with a male CPT). Similarly, other clients were also experiencing familial strain, but due to financial concerns, "I told him about my family and what we were going through with my family. I was in a financial crisis and felt like sharing" (22-year-old male training for 5 months with a male CPT). Clients may have perceived that their CPT would be a beneficial source of support and information, as exemplified through one participant's disclosure about in-laws, "We've had extensive conversations about my issues with my overbearing future mother-in-law. He had a similar situation with his mom when he first got married, so he gives me a lot of good advice" (31-year-old female training for 24 months with a male CPT). However, while most familial disclosures appear negatively valenced, some discussions were positive, "We have shared about our families and how much we love them" (66-year-old female training for 156 months with a male CPT).

 Regarding romantic relationships ($n = 57$), many clients discussed the situation surrounding their break-up or (pending) divorce from their partner. For example, one participant reported, "I told him about my ex-wife cheating on me and the things I went through in my divorce" (32-year-old male training for 10 months with a male CPT).

Similarly, another participant was more revealing with details about the divorce, "I told her that I got divorced because my husband was repeatedly unfaithful with prostitutes" (52-year-old female training for 35 months with a female CPT). Some participants chose to disclose their faithfulness to their partner with their CPT, "I almost cheated on my wife and I told Dane all the details" (40-year-old male training for 4 months with a male CPT). While divorce and faithfulness were very common romantic disclosures, some participants spoke about relational conflict and abuse. For example, one participant reported, "We discussed my partners negatively [sic] and emotional abuse" (35-year-old female training for 6 months with a female CPT), while another reported, "I shared with her the fights and relationship struggles I have had with my partner" (23-year-old female training for 5 months with a female CPT). As demonstrated through these descriptions, clients readily share information about their relationships with their CPT, likely as a way to seek advice and support about how to handle their situation.

Physical health. This theme summarizes participants discussing their physical health ($n = 27$), including the sub-theme of illness and disease ($n = 11$). Some of the discussions surrounding physical health were directly related to the clients' ability to engage in exercise, "I have shared my personal health information (e.g., medications, use of Rx marijuana, fibromyalgia diagnosis)" (39-year-old female training for 3.5 months with a male CPT). Similarly, "I have several injuries, a knee and shoulder. They didn't bother me when I was younger but know they seem to be slowing me down. Trying to find workouts to work around them" (40-year-old male training for 9 months with a male CPT). These two disclosures highlight the importance of CPTs' awareness of their clients' medications and physical limitations to tailor more effective workout regimens

and monitor their performance. One participant chose to disclose his "erectile dysfunction" to his CPT (57-year-old male training for 108 months with a male CPT), though this is a medical condition that does not impact training ability. Other participants reported how their physical health was improved as a result of exercise, "I disclosed with Amy that I am a pre-diabetic, and how I was close to becoming a Type-2 Diabetic until I changed up my lifestyle routine through eating healthier and working out" (34-year-old male training for 1 month with a female CPT). Through these descriptions, discussions about clients' physical health and abilities are likely prominent at the start and throughout the duration of training.

      Professionalism. This theme captures participants' unwillingness to disclose personal information and their desire to maintain a strict professional relationship with their CPT ($n = 60$). Numerous participants expressed the sentiment that their CPT was not meant to a be a friend, "I make it a point to not share personal and intimate information. I am paying for exercise training not to get a friend" (31-year-old male training for 6 months with a female CPT). Additionally, some participants did not feel comfortable disclosing personal information and instead wanted to strictly focus on exercise, "We never discussed personal or intimate details of our lives, totally professional which is the way that I wanted things to be" (68-year-old female training for 4 months with a male CPT). Interestingly, several participants ($n = 12$) stated they did not disclose any personal information with their CPT, but then went on to share varying levels of personal information that they have discussed. For example, one participant stated, "I do not share intimate information with almost anyone only my mother, husband, and my best friend . . . Perhaps a personal detail that I have shared to coach,

was my inability of having more children" (32-year-old female training for 24 months with a female CPT). Through these statements, it is clear that some clients are strictly looking for a trainer, not a friend. However, even though they may have a specific intent to not share personal information, some clients still end up disclosing fairly intimate details about their lives.

Support seeking. This theme exemplifies the participants attempts to receive support from their CPT due to a difficult situation they were experiencing in their personal lives ($n = 16$), moving beyond a strictly professional training relationship. Several participants sought support directly from their CPT. One participant needed advice about work, "During my training with Steve I try to discuss my family and my work-related issue[s] with him in order for him to tell me how to go about it" (40-year-old male training for 6 months with a male CPT). Similarly, another client needed relationship advice, "[About] my marriage [and] how he would handle certain situations" (50-year-old male training for 6 months with a male CPT). These clients may perceive their CPT to have knowledge about the issues they are facing. However, not all participants directly reported that they were seeking support from their CPT, but their disclosures pointed to a potential desire for support. For example, one client reported, "I have disclosed personal feelings with her regarding my health [and] exercise regimen of feeling like I will fail or have a hard time doing it with some of my body's health conditions" (36-year-old female training for 12.5 months with a female CPT). This client did not directly ask for support, but their comments point to a desire to have their CPT act emotionally supportive to help encourage them through their hardships. As evidenced

through these disclosures, CPTs are often a readily sought source for various types of support.

Trainer sharing. This theme represents instances when the participants reported that their CPT was actually doing more sharing of intimate information about themselves compared to the participant (*n* = 13). One participant reported, "Actually, it is/was the reverse. She has/had a troubled relationship and I would ask how it was going and then would listen while I worked out" (69-year-old male training for 18 months with a female CPT). Similarly, another client reported, "I was helping him navigate the relationship with his pregnant partner" (63-year-old female training for 39 months with a male CPT). In these instances, it appears that the client is the supportive member of the dyad. There were numerous examples of mutual sharing of safer topics, "We have shared about our families and how much we love them" (66-year-old female training for 156 months with a male CPT). However, there were also instances of intimate disclosures from the CPT, such as, "Sexual experiences and his point of view" (42-year-old female training for 8 months with a male CPT) and "Since we are both women and married, we have talked about sex and family" (66-year-old female training for 24 months with a female CPT). As described, CPTs' disclosures are often mutual and mirror the types of disclosures they receive from their clients.

Trust. This theme characterizes a level of connection that participants likely experienced with their CPT (*n* = 51), as they discussed the sub-themes of coming out (*n* = 5), friendship (*n* = 10), sexual desires and experiences (*n* = 22), and sharing secrets (*n* = 9). Five participants reported they shared their sexual affiliation with their CPT, a topic that they kept from their families. For example, one client reported, "I shared information

about my sexual orientation which was not something that many people were aware of, and I had just started coming out to family and friends" (36-year-old female training for 72 months with a male CPT), while another echoed that sentiment, "I have shared that I am gay (I am closeted to my family)" (28-year-old male training for 1.5 months with a male CPT). These participants likely feel a strong bond with their CPT, allowing them to be comfortable enough to share something that they have kept from their families.

The next sub-theme captures a sense of friendship that clients have with their CPT. Through continuous training sessions, one participant reported becoming friends with their CPT through mutual disclosure, "We are very open about our lives and talk about issues with each other. We became pretty close friends because of that" (29-year-old male training for 12 months with a male CPT). The sharing of personal information helps propel the relationship to a stronger level of friendship outside the gym, "Max has been a close friend outside of our client/trainer relationship so our discussions easily flow between friendship and client/trainer relationship" (57-year-old female training for 24 months with a male CPT). Though not all clients are hoping to create friendships with their CPT, these disclosures show that the relationship does not have to be strictly professional.

The third sub-theme within trust was the sharing of clients' sexual desires and experiences. A few participants chose to discuss sex in relation to exercise, with one participant, "Discussing aspects of [my] sex life in relation to exercise and health" (35-year-old male training for 5 months with a male CPT), while another participant had seen beneficial sexual outcomes because of exercise, "Since getting more fit and healthy, I have found that my sex life is a lot better than it used to be" (28-year-old male training

for 14 months with a male CPT). While these disclosures were in relation to exercise, there were several instances of clients sharing details of their sexual experiences with their CPT. For example, one client reported, "The sexual positions I experienced during an encounter" (73-year-old male training for 24 months with a female CPT), while another reported, "After getting divorced, [I] discussed meeting and sleeping with multiple partners" (46-year-old male training for 7 months with a male CPT). These intimate details were reciprocated in several instances, with one client reporting, "[We] Discussed a threesome he had with his girlfriend and another guy and I mentioned I have done the same" (37-year-old male training for 6 months with a male CPT). Further, in one instance, the CPT was the target of the client's sexual fantasy, "I really felt that if he was into it that we might have an affair but he was definitely going to be faithful to his partner. I needed to be too - but he is so inticing [sic]" (50-year-old male training for 4 months with a male CPT). These participants seemingly feel comfortable enough to have sexual conversations with their CPT, indicating high levels of trust within the relationship.

The final sub-theme uncovered is the participants sharing secrets with their CPT. While some of the aforementioned disclosures could fall into the sharing secret category, the disclosures in this sub-theme are particularly the ones where participants referred to information that most others do not know. For example, one participant reported, "[My CPT] was pretty much the first one to know I was pregnant both times, prior to telling any friends or family (besides my husband)" (35-year-old female training for 69 months with a male CPT). While pregnancy is an important factor to disclose to a CPT as it impacts the training program, this participant chose to tell her CPT even before her

friends and family both times; perhaps, a mix of professional and personal disclosure.

There were also several instances when the disclosures carried a heavier weight. For example, one participant reported, "Trying to kill myself when I was 15" (49-year-old male training for 100 months with a male CPT), while another reported, "I told him I was HIV positive" (30-year-old female training for 5 months with a male CPT). While it is unclear if these participants have shared this information with many others in their lives, the depth of the disclosures indicate the information is likely kept hidden. In all, these disclosures within this theme and sub-themes speak to the deep sense of trust and connection that clients can develop with their CPTs.

Conversational Topics

Research question 2 asked, how often do clients discuss common conversational topics with their CPT? Means, standard deviations, and ranges for discussion topics are provided in Table 4 above. Participants reported talking with their CPT most often about working out ($M = 84.43$, $SD = 20.24$), followed in order by diet or nutrition ($M = 64.08$, $SD = 29.96$); health issues or concerns ($M = 61.28$, $SD = 29.04$); hobbies or recreational activities ($M = 52.67$, $SD = 29.66$); COVID-19 ($M = 52.01$, $SD = 31.30$); work or career ($M = 48.16$, $SD = 29.49$); family or children ($M = 46.01$, $SD = 31.56$); news or current events including politics ($M = 43.45$, $SD = 30.82$); sports ($M = 37.66$, $SD = 33.05$); romantic relationships ($M = 23.22$, $SD = 27.62$); finance, money, or stocks ($M = 21.10$, $SD = 26.88$); religion ($M = 15.98$, $SD = 23.99$); alcohol or drugs ($M = 14.78$, $SD = 20.85$); and sex ($M = 12.66$, $SD = 23.24$).

When comparing female's and male's frequency of discussion based on topics, females significantly differed from males on five topics (see Table 12 for descriptives

split by sex). Results from an independent samples *t*-test revealed a significant difference between females and males on discussions about alcohol or drugs with their CPT, $t(390)$ = -2.22, $p < .05$, $d = .24$, where males ($M = 18.22$, $SD = 21.63$) reported discussing alcohol or drugs significantly more often compared to females ($M = 13.21$, $SD = 20.33$). Results revealed a significant difference between females and males on discussions about family or children with their CPT, $t(272.76) = 2.72$, $p < .01$, $d = .29$, where females ($M = 48.77$, $SD = 32.72$) reported discussing family or children significantly more often compared to males ($M = 39.99$, $SD = 28.07$). Results revealed a significant difference between females and males on discussions about finance, money, or stocks with their CPT, $t(390) = -2.21$, $p < .05$, $d = .24$, where males ($M = 25.52$, $SD = 26.66$) reported discussing finance, money, or stocks significantly more often compared to females ($M = 19.07$, $SD = 26.79$). Results revealed a significant difference between females and males on discussions about sex with their CPT, $t(202.20) = -2.93$, $p < .01$, $d = .33$, where males ($M = 18.05$, $SD = 25.88$) reported discussing sex significantly more often compared to females ($M = 10.19$, $SD = 21.53$). Finally, results revealed a significant difference between females and males on discussions about sports with their CPT, $t(213.40) = -4.95$, $p < .001$, $d = .55$, where males ($M = 50.02$, $SD = 34.61$) reported discussing sports significantly more often compared to females ($M = 32.01$, $SD = 30.76$). Correlations split by sex are provided in Table 13.

Table 12
Descriptive Statistics for Conversational Topics Split by Sex (N = 392)

	M_M	SD_M	M_F	SD_F	Range
1. Alcohol or drugs	**18.22***	21.63	13.21	20.33	0 – 99
2. COVID-19	51.64	28.38	52.17	32.39	0 – 100
3. Diet or nutrition	65.90	28.61	63.25	30.58	0 – 100
4. Family or children	39.99	28.07	**48.77***	32.72	0 – 100
5. Finance, money, or stocks	**25.52***	26.66	19.07	26.79	0 – 100
6. Health issues or concerns	61.90	28.16	61.00	29.48	0 – 100
7. Hobbies	53.06	26.43	52.49	31.07	0 – 100
8. News or current events	44.18	29.45	43.12	31.48	0 – 100
9. Religion	16.97	21.82	15.53	24.94	0 – 100
10. Romantic relationships	24.54	27.54	22.62	27.69	0 – 100
11. Sex	**18.05****	25.88	10.19	21.53	0 – 100
12. Sports	**50.02*****	34.61	32.01	30.76	0 – 100
13. Work or career	47.21	28.61	48.59	29.93	0 – 100
14. Working out	81.76	20.71	85.65	19.94	0 – 100

Note: M subscript denotes male values, F subscript denotes female values. Bold values represent significant *t*-test between females and males. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 13
Bivariate Correlations for Conversational Topics Split by Sex (N = 392)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Alcohol or drugs	**.11***	.35***	.20*	.32***	.54***	.19*	.32***	.42***	.58***	.49***	.59***	.35***	.39***	-.06
2. COVID-19	.27***	**-.01**	.08	.38***	.26**	.35***	.39***	.41***	.18*	.20*	.20*	.28**	.36***	.10
3. Diet or nutrition	.23***	.33***	**.04**	.04	.12	.43***	.25**	.07	-.02	.05	.02	.29**	.17	.51***
4. Family or children	.19**	.29***	.26***	**-.13***	.49***	.29***	.51***	.51***	.52***	.51***	.48***	.39***	.57***	.10
5. Finance, money, or stocks	.51***	.31***	.26***	.33***	**.11***	.14	.40***	.45***	.67***	.58***	.64***	.43***	.49***	-.10
6. Health issues or concerns	.25***	.35***	.45***	.34***	.24***	**.01**	.35***	.19*	.08	.16	.10	.19*	.26**	.37***
7. Hobbies	.25***	.42***	.35***	.40***	.31***	.35***	**.01**	.50***	.27***	.35***	.34***	.55***	.59***	.15
8. News or current events	.25***	.48***	.26***	.36***	.42***	.31***	.48***	**.02**	.41***	.46***	.37***	.41***	.46***	-.11
9. Religion	.39***	.20**	.21**	.35***	.54***	.17*	.21**	.35***	**.03**	.64***	.67***	.21*	.37***	-.21*
10. Romantic relationships	.45***	.23***	.26***	.32***	.52***	.24***	.32***	.39***	.45***	**.03**	.68***	.34***	.49***	-.14
11. Sex	.56**	.18**	.21**	.28***	.64***	.19*	.26***	.34***	.56***	.68***	**.16****	.31**	.42***	-.15
12. Sports	.40***	.31***	.32***	.28***	.41***	.19*	.39***	.39***	.34***	.29***	.37***	**.25****	.48***	.09
13. Work or career	.30***	.37***	.30***	.47***	.34***	.29***	.52***	.41***	.35***	.40***	.32***	.41***	**-.02**	.16
14. Working out	.04	.26***	.48***	.20**	.05	.37***	.33***	.19**	-.01	.01	-.04	.14*	.22***	**-.09**

Note: Female reports are below the diagonal, male reports are above the diagonal. The bold diagonal indicates sex-by-topic correlation. Closeness is a single-item measure. * $p < .05$, ** $p < .01$, *** $p < .001$.

COVID-19

Participants responded to several questions about the possible effect that COVID-19 had on their training and relationship with their CPT. A majority of participants ($n = 249$; 63.5%) reported that COVID-19 had altered their training routine with their CPT. Specifically, participants reported that due to gym closures, they had to transition their workouts to virtual channels such as Zoom. For example, one participant reported, "We are meeting on Zoom for our weekly training. Kurt owns the gym, but I have not been in

the physical building since last March" (78-year-old female training for 28 months with a male CPT). When training at home through virtual channels, participants and their CPT had to get creative with their workouts, "We train through Zoom now. Karen has found alternatives to using weights and has gotten creative with exercise and equipment" (30-year-old female training for 10 months with a female CPT).

For those who were still able to meet in-person at the gym ($n = 35$; 9.9%), participants reported they had less frequent visits to the gym and had to schedule appointments, as gym capacity was often restricted. For example, another participant reported, "In-person sessions [were] reduced from 3-4 times weekly to 2 times per month" (73-year-old female training for 44 months with a female CPT). Other participants reported that they transitioned their training to outdoor environments, but due to this, they had to alter their training because they did not initially have the necessary equipment, "We used to meet in the gym. Now, we either train over Zoom or he comes to my house, and we train outside. He has lent me a couple of items, and I have purchased some weights and bands" (65-year-old female training for 48 months with a male CPT).

Participants also often indicated ($n = 50$, 12.8%) that in-person training consisted of mask wearing, physical distancing as much as possible, and increased sanitation, "There is a lot of cleaning and hygiene routines that have to be followed now. Disinfectant, washing hands, wearing masks" (66-year-old female training for 1 month with a female CPT). While some participants appeared to be pleased by these safety policies, "There was an agreement to use masks and pre-exercise temperature checks . . . Exercise areas are clearly defined to maintain safe distancing between myself and Haley" (79-year-old male training for 9 months with a female CPT), other participants were not

happy with the amount and types of restrictions they experienced. One participant reported, "There have been some stupid rules placed on gyms in our state by our stupid governor pretending it adds safety" (61-year-old male training for 15 months with a male CPT). Participants were also frustrated with the inconsistency and interruptions they experienced, "The personal and group [training] sessions were stopped, then briefly group started, then stopped. Then some virtual group sessions, then [they] all stopped, so it is very frustrating" (72-year-old male training for 24 months with a female CPT). The pandemic also caused economic hardship that impacted participants ability to meet with their CPT, "[The gym] been completely shut down since February. Now [my trainer] has a set-up where she takes clients in a private space, but because of the lockdowns and [Mitch] McConnell's blocking of stimulus, I can't afford sessions anymore" (24-year-old female training for 12 months with a female CPT).

Even though the pandemic had altered a majority of participants' training routines, 311 participants (79.4%) reported they were either very or extremely motivated to continue their training while the pandemic continued. An independent samples *t*-test revealed a significant difference between females and males motivation to continue working with their CPT during the pandemic, $t(390) = 2.98$, $p < .01$, $d = .32$. Specifically, females ($M = 4.22$, $SD = .91$) reported having significantly higher motivation to continue working with their CPT while the COVID-19 pandemic continues compared to males ($M = 3.93$, $SD = .93$).

Additionally, participants indicated the types of support their CPT continued to provide during the pandemic. As this question's response options were "select all that apply," 275 participants (70.2%) reported their CPT provided them with instrumental

support such as providing workout plans, 249 (63.5%) received informational support such as receiving advice from their CPT, 143 (36.5%) received emotional support such as their CPT expressing empathy, and 132 (33.7%) received companionship support such as their CPT enhancing their self-esteem. Sixteen participants (4.1%) reported they did not receive any type of support from their CPT.

CHAPTER 5

DISCUSSION

The fitness client-CPT relationship represents an understudied, yet fruitful area of research from a communication researcher perspective. Within the context of a professional, service-based relationship, exploration of specific relational variables can illuminate the necessary and sought behaviors that are associated with beneficial health outcomes and self-improvement for clients. This theoretical knowledge has the ability to transcend the theory-practice gap by offering similar industries a model for training their professionals for the betterment of their clients. As such, the current study had two primary goals.

The first goal was to examine fitness clients' experiences with their certified personal trainer (CPT) by exploring the process of self-expansion, defined here as self-growth (Aron et al., 2013). A path model was proposed and tested by incorporating several control variables and key predictor variables of the self-expansion process. First, the control variables of clients' attachment style, age, sex, and relationship length with their CPT were considered. Then, several hypotheses were tested to examine the self-expansion process and determine if the model fit the data. Specifically, the study hypothesized that clients' levels of internal and external motivation would positively predict their experiences of self-expansion, self-pruning, and self-disclosure with their CPT. Next, self-disclosure was hypothesized to positively predict clients' perceptions of closeness with their CPT. The association between self-disclosure and closeness was hypothesized to be moderated by clients' perceptions of their CPT's active listening skills. Further, clients' level of perceived closeness was also hypothesized to positively

predict their perceptions of support from their CPT, which would, in turn, positively predict their experiences of self-expansion and self-pruning. Overall, the model did not adequately fit the data as proposed. The inclusion of new variables within a new context raises several questions about the process of the self-expansion model, as applied to professional and service-based relationships.

The second goal of the current study was to illuminate the conversations that take place between the client and their CPT (i.e., within the dyad). Two research questions sought to determine the types of conversations that occur within the dyad and how often clients talk to their CPT about specific, predetermined topics. Results suggest that clients often discuss exercise, diet, and physical health issues with their CPT. However, while discussed at lower rates, results from a thematic analysis revealed the themes of body dysmorphia, loss and grief, mental health, personal relationships, physical health, professionalism, support seeking, trainer sharing, and trust. For some clients, a professional, service-relationship is desired, while other clients' disclosures suggest a deeper connection with their CPT. Examples of clients' disclosures provide further support for the importance of CPTs developing active-empathic listening.

Path Model

The original self-expansion model suggests that an individual has an inherent motivation to increase their self-efficacy, which is accomplished through establishing close relationships and engaging in novel and challenging activities (Aron & Aron, 1996; Aron & Aron, 1986). While this phenomenon has mainly been studied within romantic relationships, the current study was the first known attempt to create a full path model of the relational closeness self-expansion process with the inclusion of additional variables

98

proposed by researchers over the past three decades. This section will first discuss the effects of the control variables in the model, then will provide details on each of the model's paths based on the study's hypotheses. The section will conclude by highlighting the theoretical implications and providing a brief synthesis of self-expansion in the current context.

  Control variables. Several control variables were incorporated into the model including clients' attachment style with their CPT, age, sex, and the length of the client-CPT relationship. Several control variables were significantly associated with a few of the model's primary variables. First, clients' reports of attachment anxiety and security were positively associated with their perceptions of closeness with their CPT, while attachment avoidance was negatively associated with closeness. These findings are in line with previous attachment theory literature. Specifically, individuals with an anxious attachment often engage in behaviors that promote closeness (Vogel & Wei, 2005), while those with a secure attachment have an easier time forming relationships and expressing and receiving intimacy (Collins & Feeney, 2000). Conversely, individuals with an avoidant attachment prefer to be independent and tend to disengage from relationships (Vogel & Wei, 2005).

  Second, participants' age was significantly negatively associated with their level of external motivation, but not significantly associated with their internal motivation. The negative association suggests that younger participants reported higher levels of external motivation for hiring a CPT. Perhaps, younger adults reported higher levels of external motivation because of social comparison, which may be facilitated via social media use (Vogel et al., 2014). Specifically, young adults may feel pressured from external sources

99

to be fit and obtain an "ideal" figure, as research indicates that younger generations utilize social media at higher rates than older generations (Pew Research Center, 2019). For example, a content analysis of the "fitspo" (fitspiration) hashtag across four social media sites (i.e., Instagram, Facebook, Twitter, Tumblr) suggests that the use of the hashtag was significantly associated with thin and athletic females and muscular and hypermuscular males (Carrotte et al., 2017). Further, one 21-year-old female participant shared with her CPT, "how on occasion I can have negative feelings about myself which leads me to be harder on myself at the gym" (training for 3 weeks with a male CPT). Thus, given that individuals under 40-years-old use social media at higher rates than those above 40-years-old (Pew Research Center, 2019), younger individuals in the current sample may be engaging in excessive social comparisons through seeing similar posts to those described above on their social media, which may represent a strong externally motivated source to get fit through hiring a CPT. However, future research should consider the impact of social comparisons via social media on individuals' motivations to hire a CPT and engage in exercise.

Third, participants' sex was positively associated with their perceptions of closeness with their CPT, but negatively associated with their experiences of self-expansion. When examining the t-test results for sex differences between perceptions of closeness, a significant result did not manifest. However, there was a significant positive association within the path model, suggesting a difference between males and female's perceptions of closeness. This finding is likely due to the more complex interrelationships among predictor variables in the regression equations, such as self-disclosure, attachment style, and relationship length. Additionally, the t-test results for sex differences between

experiences of self-expansion indicate that females reported significantly higher experiences of self-expansion than males. Thus, the significant negative association within the path model suggests a difference between male and female's experiences of self-expansion.

Finally, participants' length of relationship with their CPT was positively associated with their perceptions of closeness, but negatively associated with their experiences of self-expansion. Relationship length being positively associated with closeness is in line with research that suggests that individuals grow closer over time, perhaps with the help of increased breadth, depth, and valence of mutual self-disclosure (Altman & Taylor, 1973; Sprecher, 2020). There is also prior support regarding relationship length's negative association with experiences of self-expansion. Specifically, the original self-expansion model posits that while self-expansion can occur in established relationships (Aron et al., 2013), it occurs more rapidly at the beginning stages of relationships (Aron et al., 1991). Additionally, given the current context, it is likely that clients experience more growth during the initial training sessions, as it is likely that the CPT has a strong task-focus, exemplified through scheduling training sessions and specific exercises to help clients achieve their goals. During the initial training sessions, a task-focus can be beneficial to provide clients with direction and help them learn the necessary skills (Henkel et al., 2019). For example, the CPT may discuss workout and diet plans and show clients how to properly perform new exercises. Over time, it is likely that the client becomes more comfortable with their CPT and exercise in general. The CPT may transition to a relationship-focus, or a focus on the client that encompasses a stronger concern for their well-being instead of a focus on the task. Thus,

based on the current results, it is possible that clients with longer relationships experienced less self-expansion, potentially as they have already experienced self-expansion at the beginning of the relationship and a task-focus has evolved into a relationship-focus.

Direct paths. The current model included the addition of self-disclosure, as Sprecher (2020) contends that self-disclosure is a key factor in establishing closeness that is central to self-expansion. Utilizing social penetration theory (Altman & Taylor, 1973), relationships typically begin by revealing surface-level information, with disclosures becoming deeper and more personal as the dyad becomes closer and more interdependent. For example, one participant who had been training for half a month reported sharing, "No personal information . . . unless training related such as height, weight, age, etc." (72-year-old female training for .5 months with a male CPT). Conversely, another participant reported, "She has become a close friend of mine. We share personal information as a close friend would" (65-year-old female training for 120 months with a female CPT). Thus, self-disclosure was added between clients' motivation and their perceptions of closeness with their CPT. As hypothesized, clients' level of internal motivation had a stronger association with their self-disclosure with their CPT compared to their level of external motivation (H1). This finding suggests that clients who are internally motivated to work with their CPT are more likely to engage in self-disclosure with their CPT than those who are externally motivated. Interestingly, clients' level of external motivation was *negatively* associated with their self-disclosure with their CPT. Perhaps, the feeling of being driven to engage in exercise from external sources, such as pressure from a romantic partner or online social comparison, does not encourage

the sharing of information. Clients may feel they are working with their CPT because they are being forced to be there instead of wanting to be there, which may result in a lower desire to create a close relationship.

Previous research has examined motivation based on the hedonic principle of pursuing pleasurable outcomes (Higgins, 1998; Mattingly et al., 2012) and the willingness to improve (Hughes et al., 2019). The current study operationalized individuals' motivation to self-expand by incorporating both internal and external motivation within a fitness context (Deci & Ryan, 2008). Internal motivation arises from personal feelings such as enjoyment of exercise, whereas external motivation stems from outside sources or pressure from others such as family members or romantic partners that has become internalized (Vallerand & Bissonnette, 1992; Young & Burke, 2017). It was predicted that clients' level of internal motivation would have a larger (positive) effect on their experiences of self-expansion (H2) and self-pruning (H8) compared to their level of external motivation. While internal motivation was a significant positive predictor of self-expansion and self-pruning, external motivation did not significantly predict either outcome. However, given that the hypotheses predicted that internal motivation would have a *larger* effect than external motivation, the hypotheses were not supported. Upon reviewing the data, ratings of external motivation were fairly low in the current sample with approximately 25% of participants reporting the lowest possible mean score, indicative of floor effects (Terwee et al., 2007). Thus, reliability of this measure was reduced based on the limited variability, potentially biasing the results. Further, external motivation was negatively correlated with self-expansion, but not significantly correlated with self-pruning. However, these findings are in line with previous research which

103

suggests that internally motivated individuals are more likely to adhere to exercise and achieve their fitness goals than those who are externally motivation (Deci & Ryan, 2008), potentially because exercising for personal reasons is associated with higher levels of exercise enjoyment (Boyd et al., 2002).

The next step of the model considered the positive association between clients' self-disclosure and their perceptions of closeness with their CPT (H3). As previously mentioned, self-disclosure is considered a fundamental process of establishing closeness with others (Altman & Taylor, 1973; Sprecher, 2020). As such, this hypothesis was supported, providing evidence for the addition of the self-disclosure variable within the self-expansion model (Sprecher, 2020). While the positive association between clients' self-disclosure and perceptions of closeness were supported, it was proposed that clients' perceptions of their CPT's active listening skills would moderate this association (H11). Active listening is a key skill for CPTs to develop (Melton et al., 2008), as research suggests that active listening is positively associated with clients' feelings of openness and closeness (Topornycky & Golparian, 2016; Weger et al., 2014), which can help establish a collaborative and beneficial partnership (Emery, 1984; Weidner & Henning, 2002). The data did not support the moderation hypothesis. Self-disclosure and active listening were significantly correlated, indicating that both likely act as predictor variables of closeness instead of evidence of a moderating effect. However, upon correcting for error attenuation, the new model showed that active listening *did* moderate the association between self-disclosure and closeness. Therefore, further research is necessary to examine whether active listening can be considered a moderator between self-disclosure and closeness, or if it is an independent predictor of closeness.

Another variable that scholars have suggested is part of the self-expansion process is the perception of support, as attempting to self-expand involves a level of risk (Jakubiak & Tomlinson, 2020). The current study examined if and how the perception of support fits the self-expansion model. Based on research that indicates the first step of growth is discussing the importance of growth (Feeney & Collins, 2015), it was hypothesized that clients' self-disclosure would be positively associated with their perceptions of support from their CPT (H4). Certified personal trainers typically begin the initial training sessions with their clients by asking about any physical health issues, their fitness goals, and the importance and benefits of consistent exercise (Weidner & Henning, 2002). Often, client disclosures include fairly personal physical limitations and goals, as evidenced further through participants' responses to the open-ended section of the study. For example, one participant reported to their CPT, "I have several injuries, a knee and shoulder. They didn't bother me when I was younger but know [sic] they seem to be slowing me down" (40-year-old male training for 9 months with a male CPT). Similarly, another participant reported personal health information that disrupted their training routine, "My most recent medical need to have a colonoscopy unexpectedly which interfered with our workout schedule" (43-year-old female training for 24 months with a female CPT). Thus, disclosures during the first encounters are vital for setting the stage of the exercise program, while disclosures that occur during an established training relationship may be helpful for the CPT to continue to support their clients. As such, Hypothesis 4 was supported.

As previously mentioned, self-expansion was initially conceptualized as an individual's ability to expand their self-efficacy through establishing close relationships

with others (Aron et al., 2013). To test this notion, it was hypothesized that closeness would be positively associated with experiences of self-expansion (H5). Within the fitness context, clients are more likely to adhere to the exercise plan, and thus experience growth, when they perceive a strong social connection (Estabrooks et al., 2004). The results of this study support H5, providing stronger evidence that closeness is a fundamental component of increasing self-efficacy. Additionally, this study included the self-change outcome self-pruning, or improvement through the reduction of harmful behaviors (Mattingly et al., 2014). Self-pruning was included because CPTs typically encourage healthy behavior *and* promote the reduction of unhealthy behaviors (Keller, 2006). As hypothesized (H9), participants' perceptions of closeness were positively associated with their experiences of self-pruning. These results suggest that clients may improve their lives by establishing a close relationship with their CPT. Thus, perhaps clients' self-expansion occurs through increasing their knowledge of exercise and nutrition, while their self-pruning occurs through limiting negative behaviors such as overeating. For example, one participant reported, "That I was overtraining while I was doing it on my own so he developed a routine that better suits me" (53-year-old female training for 8 months with a male CPT), while another reported, "Discussing habits I can develop to help with overeating at night" (22-year-old female training for 5 months with a female CPT).

Relatedly, research suggests that closeness catalyzes an individual's self-expansion, particularly when they perceive support from a close other (Jakubiak & Tomlinson, 2020). Thus, clients' perceptions of closeness with their CPT were hypothesized to be positively associated with their perceptions of support from their CPT.

106

Contrary to H6, results showed a statistically significant negative association between closeness and support; reporting higher levels of closeness was associated with lower levels of perceived support. However, given the constraints of the current study (i.e., cross-sectional design), it is unclear whether closeness predicts support, or support predicts closeness. Regardless, this finding may have manifest due to the professional nature of the client-CPT relationship.

Individuals who hire a CPT are, first and foremost, hiring a professional to help them achieve their fitness goals. This relationship also involves an exchange of money as the CPT receives payment for the services provided. For some clients, this may be where relational development ends, as they do not expect or want anything further than a professional. For example, one participant reported, "I make it a point to not share personal and intimate information. I am paying for exercise training not to get a friend" (31-year-old male training for 6 months with a female CPT). Though, it is likely that most participants still perceived their CPT to support them during training, independent of how close they felt or how close they wanted to be, as evidenced through higher ratings of perceived support.

However, for those who seek and establish a closer bond with their CPT, it is also possible that too much closeness could reduce goal achievement due to a transition from task-focused behaviors to relationship-focused behaviors. Task-focused behaviors concern a focus on accomplishing the primary goal, such as focusing on completing exercises at a fast pace, while relationship-focused behaviors concern a stronger focus on the individual, such as having conversations about clients' personal lives (Henkel et al., 2019). If a client develops a closer relationship with their CPT, their training sessions

107

could transform from a focus on the task to a focus on each individuals' personal life. For example, one client reported "being distracted during a training session" due to discussing "a tough break up and death in my family" (25-year-old female training for 5 months with a female CPT). However, participants still reported higher levels of perceived support, but in the form of encouragement and availability regarding exercise. Therefore, it is possible that closeness is still associated with experiences of self-expansion (H5), but too much closeness results in less support regarding exercise (H6). These findings suggest that within professional service relationships, closeness may not be as beneficial for self-growth as perceived support, discussed further below in the theoretical implications.

Finally, the support variable demonstrated an important role in the self-expansion process, as previously theorized (Jakubiak & Tomlinson, 2020). Specifically, it was hypothesized that perceptions of support would be positively associated with both experiences of self-expansion (H7) and self-pruning (H10). The hypotheses were supported as higher levels of perceived support were associated with higher levels of both self-expansion and self-pruning. A CPT's primary role is to provide support to their clients to help them improve their health and achieve their fitness goals (Waryasz et al., 2016). This behavior may manifest itself through supportive comments, modeling proper technique, and spotting behaviors, among others. In the current sample, participants reported fairly strong perceptions of support from their CPT. For example, one participant reported, "She knows my issues I've had with self consciousness around my body image . . . She's been a good support through all of it" (26-year-old female training

for 20 months with a female CPT). These results are promising as they indicate that CPTs are very supportive and the support they exemplify helps produce results for their clients.

Theoretical implications. Global fit describes how well the data fit the model, while local fit describes how well the individual components of the model function (Meyers et al., 2017). Examining global fit is important when developing and testing models to determine if the proposed model is representative to the population, while examining local fit helps determine the associations between individual components. Regarding global fit, the data did not fit the model with the current sample. There are several potential reasons for this finding. First, this was an attempt to examine only the relational closeness component of self-expansion, leaving out the other major component proposed by the original self-expansion model of engaging in novel and challenging activities (Aron et al., 2013). Specifically, future research should conduct longitudinal quasi-experiments with first-time fitness clients to track how their experiences of self-expansion evolve through their perceptions of closeness with their CPT *and* their engagement in new exercises. An experiment such as the one described would help build stronger empirical support for self-expansion within this context as there would be multiple time point comparisons to help support causality, and likely help improve model fit.

Additionally, it became evident that the proposed model contained indicators that did not display significant associations. When conducting structural equation modeling and path analysis, it is important to note that global fit may be sensitive to the components contained in the model (Meyers et al., 2017). Thus, components that do not fit the proposed model can alter global fit statistics. For example, external motivation was

not associated with self-expansion or self-pruning. Perhaps, this likely occurred due to the low mean score of external motivation. Further, several control variables did not display significant associations. For example, age was not significantly associated with internal motivation, but it was negatively associated with external motivation. As discussed above, this may have occurred due to external pressures that young adults experience, such as social comparison via higher levels of social media use. Evidently, in the current sample, internal motivation was not impacted by age, as clients of all ages likely had their own personal reasons and goals they wanted to accomplish. Moreover, relationship length and participants' sex were not significantly associated with self-pruning. The self-pruning indicator was likely problematic due to its low alpha-reliability. When the nonsignificant indicators and paths were removed, the model fit did improve, but not enough to be considered adequate. Perhaps, the inadequate fit resulted from the missing activity component, or due to missing relational variables (discussed further below). However, it is important to note that global fit is just an estimation of how well the data fit the model; it does not serve a predictive function (Meyers et al., 2017). Thus, even though the model did not fit the data, important information can still be gleaned by examining the model's local fit.

When examining the local fit of the model, the original self-expansion model received fairly strong support. Specifically, closeness was significantly positively associated with self-expansion (Aron & Aron, 1996) and self-pruning (Mattingly et al., 2014), as theorized. While several studies suggest that self-expansion may occur in other contexts through closeness with others by incorporating their perspectives and identities (see Aron et al., 2013), it is understandable that individuals would rate their perceptions

110

of closeness much higher in romantic contexts than professional contexts, such as the current fitness training context. Evidence of this notion was shown within the current data through a fairly low mean closeness score, as well as qualitative evidence that suggests some clients strictly view their interactions with their CPT as professional and not friendly. For example, one client reported, "Nothing intimate or personal, [only] common conversations you would have with a professional associate" (62-year-old male training for 24 months with a female CPT). The low mean closeness score combined with some of the qualitative data present a potential limitation of the self-expansion model in a professional service context. Within professional and service-based relationships, clients may not have an interest in establishing a high level of closeness with their provider. However, despite a lack of closeness, clients still may benefit from interacting with the service provider. Perhaps, the self-expansion comes in the form of engagement in novel and challenging activities as theorized (Aron et al., 2000), but it is also possible that other characteristics and behaviors of the service provider, such as providing support and sharing information, are more beneficial than feeling close. Thus, while closeness was still positively associated with self-expansion, a stronger association was present between perceptions of support and self-expansion.

Findings from the current study reinforce the recommendation that perceived support be a vital component of the self-expansion process (Jakubiak & Tomlinson, 2020). For example, a client's CPT likely makes an active attempt to help them achieve personal growth and accomplish their fitness goals. Thus, it is possible that perceiving support is more important than perceiving closeness. Particularly, within the current sample and context, participants rated perceptions of support significantly higher than

111

their perceptions of closeness, yet they still reported experiences of self-expansion. For example, one participant reported, "I keep our sessions on the 'professional' level of communication. My intention is to have a trainer to help keep me on track with my exercise needs and have her as a resource of feedback" (69-year-old female training for 36 months with a female CPT). This example provides support that clients do not necessarily need or want to be close or personal with their CPT. Instead, some clients view them as sources of support and feedback to help them achieve self-growth. Therefore, future research should investigate whether closeness is as fundamental as originally argued, or if this finding is just context-specific.

Several additional variables were added to the self-expansion model that have important theoretical implications. Motivation, as operationalized, suggests that internal motivation is positively associated with self-expansion directly (Hughes et al., 2019). Additionally, self-pruning was added as a potential outcome to capture the participants' growth through the reduction of negative behaviors (Mattingly et al., 2014). Results indicated that internal motivation was also positively associated with self-pruning directly. This finding supports the notion that self-change is a multifaceted process, not limited solely to self-expansion (Mattingly et al., 2014). Specifically, self-pruning in the current context may stem from CPTs' support and direction in limiting unhealthy behaviors. For example, one client reported, "Mostly just how I feel negatively about myself and that I eat my emotions and how to cope differently as to not sabotage my health goals" (46-year-old female training for 36 months with a male CPT). This client may be actively seeking support to improve through reducing their negative behaviors, which reflects self-pruning.

112

While the current study revealed that internal motivation fits well in the model, motivation from external sources did not yield positive associations with self-expansion or self-pruning as hypothesized. External motivation stems from engaging in a behavior for reward or punishment, or due to external factors being internalized (e.g., approval, shame avoidance; Deci & Ryan, 2008). Within the fitness context, external sources such as pressure from loved ones, doctors, or social media likely provide a level of motivation to hire a CPT. However, prior research suggests that controlled (external) motivation can deplete an individual's energy, while autonomous (internal) motivation can be vitalizing (Deci & Ryan, 2008). Thus, it is understandable why participants reporting higher levels of external motivation would not experience the positive benefits of self-expansion and self-pruning compared to participants with higher levels of internal motivation.

The original self-expansion model suggests that motivation to increase self-efficacy is *inherent*, defined as an innate human drive to improve the self (Aron et al., 2013). However, based on the findings from the current study, researchers should continue to operationalize motivation to examine its origins and the variability to which it may be experienced. For example, motivation is likely context-dependent as Hughes and colleagues (2019) suggest motivation is associated with the willingness to change, while Mattingly and colleagues (2014) suggest motivation is associated with approach motivation. Within the current context, motivation to work with a CPT is more representative of possessing internal reasons versus external reasons. Further, external motivation does not appear to influence experiences of self-expansion or self-pruning, as it did not make a significant contribution to the self-expansion process. However, external motivation was negatively associated with self-disclosure, possibly suggesting

113

that being compelled to work closely with someone from outside forces creates a barrier to self-disclosure. Given that a hallmark of good theory is its predictive power (Shoemaker et al., 2004), using specific operationalizations of motivation will likely strengthen the self-expansion model by delineating what counts and what does not count as internal and external motivation, and by identifying specific sources of motivation. Ultimately, the current study provides evidence that motivation may *not* be inherent; rather, motivation can, and should, be operationalized, linked to different sources, and experienced at varying levels, dependent on the individual and context.

As theorized, self-disclosure was positively associated with perceptions of closeness (Sprecher, 2020). Revealing personal information is the primary process through which closeness can develop and is thus a precursor to self-expansion. For example, one participant reported, "We are very open about our lives and talk about issues with each other. We became pretty close friends because of that. I told him about my family issues and he told me his" (29-year-old male training for 12 months with a male CPT). However, it is important to note what is being disclosed and when, as well as how those disclosures are being understood, interpreted, and responded to. As CPTs' perceptions of these disclosures were not captured in the current data, future research should study the initial conversations between CPTs and their clients to examine if and how self-disclosure results in perceptions of closeness for both members of the dyad.

In the current sample, self-disclosure was also positively associated with perceptions of support. This finding provides further evidence for the previous suggestion to examine the nature of closeness within the self-expansion process (Mattingly et al., 2020; Sprecher, 2020), particularly within service and professional relationships. It is

possible that self-disclosure positively predicts perceptions of support and closeness separately, which in turn positively predicts self-expansion. Though, in the current study, closeness was negatively associated with perceptions of support, contrary to hypotheses. As previously mentioned, it is possible that having too strong of a relationship-focus detracts from a task-focus during training, resulting in lower levels of perceived support.

Perhaps, different relational variables should be considered other than closeness when comparing romantic relationships to service and professional relationships. While closeness may be a strong measure within romantic contexts (Aron & Aron, 2006), it is evident that not all participants in the current study desired closeness with their CPT as evidenced by one client that reported, "We never discusssed [sic] personal or intimate details of our lives, totally professional which is the way that I wanted things to be" (68-year-old female training for 4 months with a male CPT). Even without feeling close, participants still experienced self-expansion via perceived support. Conversely, the current data also suggests that some clients *do* appreciate and value the close bond and friendship they develop with their CPT. For example, one client reported, "I know a lot about him as he does me through working together so long but it helps pass the time and make [sic] me feel less like a client and more of a friend" (31-year-old female training for 24 months with a male CPT). Thus, it is likely that closeness alone is not enough to capture the varying experiences and expectations of clients within service and professional contexts. Instead, along with support, relational variables such as trust, respect, openness, and positivity may be influential components of the self-expansion process for both those who are not interested in establishing close relationships and those who do value a stronger level of connection. Therefore, future studies should consider the

addition of new relational variables in the self-expansion model, such as relational maintenance behaviors (Canary et al., 1993), to determine which are stronger predictors of self-growth.

   Synthesis. In sum, results from the path model suggest that the self-expansion process is likely more complex than originally conceptualized, which is reinforced by the inadequate model fit. Over the past three decades, research on the self-expansion model has suggested that new variables be incorporated into the model such as operationalizations of motivation (Hughes et al., 2019; Mattingly et al., 2012), self-disclosure (Sprecher, 2020), perceived support (Jakubiak & Tomlinson, 2020), and self-pruning (Mattingly et al., 2014).

   The current model provides support for operationalizing motivation to determine the amount and type of motivation that compels clients to seek, and engage with, a CPT. Particularly, within the current context, internal motivation appears to be a significant motivator of exercise intention (Young & Burke, 2017). Further, results support the addition of the two relational variables, self-disclosure and perceived support, and raises the question of what other relational variables should be included in the self-expansion process. Though closeness is foundational to self-expansion (Aron et al., 1991), in the current study, self-disclosure was shown to be a stronger predictor of perceived support compared to perceived closeness, and perceived support was a stronger predictor of self-expansion compared to perceived closeness. Perhaps, these findings are a result of the current context of professional and service relationships, as data from the current study suggest that some clients do not want to establish close relationships with their CPT. However, results also suggest that these clients may still experience self-improvement.

The study also provides additional support for the important consideration that self-change does not always occur by adding positive aspects to the self, but instead growth can also occur through removing negative aspects of the self via self-pruning (Mattingly et al., 2014).

While support has been shown for new components, such as internal motivation, self-disclosure, support, and self-pruning, the self-expansion process is seemingly still incomplete. As mentioned, it is possible that the absence of the novel and challenging activities could be a reason for the poor model fit. Similarly, the poor model fit could be a result of the absence of necessary relational variables given a specific context and relationship. To further investigate the missing components, a deeper analysis of participants' disclosures is provided below, along with practical recommendations for CPTs to consider while working with their clients.

Client Disclosures

The current study provided an in-depth examination of the types of conversations that occur between fitness clients and their CPT. Clients were asked to report how often they discussed common conversation topics and to provide details about the most intimate or personal information they had shared with their CPT. Nine themes were uncovered through thematic analysis, including body dysmorphia, loss and grief, mental health, personal relationships, physical health, professionalism, support seeking, trainer sharing, and trust. A review of these themes and responses suggests that at least 15% of the current sample desired a strictly professional relationship with their CPT. Thus, those participants chose to restrict, or not report, intimate or personal sharing to maintain a level of professionalism.

For example, some of these participants reported not sharing *any* personal information, "I've not shared any intimate information with Kenneth and don't plan to do so" (38-year-old male training for 2 months with a male CPT). However, other participants who wanted to maintain a professional atmosphere still did disclose personal information, but the disclosures were task-related, concerning physical health, medication, and body movement limitations, among others. For example, one participant reported, "I wouldn't be comfortable going into intimate detail that doesn't pertain to my work with Tony. He's my trainer, not my friend" (33-year-old male training for 6 months with a male CPT). In some responses, participants indicated that they were not interested in sharing personal information with their CPT. However, some of these participants still provided an example of personal information that they *did* disclose to their CPT. For example, one participant stated, "I do not share intimate information with almost anyone only my mother, husband, and my best friend . . . Perhaps a personal detail that I have shared to [sic] coach [Cathy], was my inability of having more children" (32-year-old female training for 24 months with a female CPT). Possibly, the participants that said they did not share, but still did share, have different understandings of what constitutes intimate or personal disclosures.

An analysis of the data regarding common conversation topics suggests that most conversations are about more common topics such as exercise and dieting. Though, even at lower frequencies, the intimate disclosures move beyond a purely professional relationship to a more friendship-oriented relationship. As such, approximately 85% of the sample reported they had disclosed personal or intimate information to their CPT at

some point. Within this portion of the sample, it appears that participants shared information with their CPT based on a perceived level of closeness they shared.

Social penetration theory (Altman & Taylor, 1973) suggests that individuals become closer to others over time, through sharing information that gets increasingly personal or intimate. The initial training sessions often involve the disclosure of personal medical history and physical limitations (Weidner & Henning, 2002), as these disclosures are essential to ensure a safe and effective training routine. A portion of the current sample reported that sharing various aspects of their physical health status was the most personal or intimate information they had shared with their CPT. For example, multiple participants disclosed their fibromyalgia diagnosis, with one reporting, "I have fibromyalgia and try to hide it from people" (51-year-old female training for 24 months with a female CPT). Similarly, another participant reported "talking about the suffering caused by fibromyalgia, about how to alleviate it" (37-year-old female training for 11 months with a female CPT). This syndrome is one example that highlights the importance of sharing personal health information with their CPT. However, while some participants reported their physical limitations and medications, others reported sharing medical information that is not directly linked with exercise ability such as personally having erectile dysfunction, a shy bladder, or sharing about a loved one's cancer diagnosis and treatment. Given that the average relationship length was 18 months, it is likely that clients had a chance to develop a greater sense of trust during this time, leading them to reveal necessary personal medical information at the beginning stages of the relationship and disclosing more personal medical conditions unrelated to training over time.

Additionally, research suggests that joint activities may influence social bonding (Wolf et al., 2016), and that engaging in novel and challenging activities may result in arousal that impacts experiences of self-expansion (Mattingly & Lewandowski, 2014a). While the CPT is the natural leader in the current context, the client is likely engaging in new and challenging activities that activate arousal. This arousal may be misattributed as attraction or closeness to the CPT, which may facilitate bonding. Thus, engaging in exercise may result in feeling closer to the CPT. Further, given that closeness is increased through self-disclosure (Altman & Taylor, 1973), clients may disclose more personal information, whether intentionally or unintentionally, as evidenced by the sub-theme of sharing secrets. For example, one participant reported sharing "information about my sexual orientation which was not something that many people were aware of, and I had just started coming out to family and friends" (36-year-old female training for 72 months with a male CPT). Based on the path model, self-disclosure is positively associated with closeness, which in turn is positively associated with self-expansion. Thus, it is possible that the self-disclosure that occurs during training activities is a catalyst for self-improvement. However, the specific influence of joint activities and self-disclosure in the current context was not (temporally) explored, but it represents a fruitful area of future research.

Social penetration theory also contends that sharing information is typically reciprocal (Altman & Taylor, 1973), and this mutual disclosure is important for establishing rapport and increasing intentions to return in service relationships (Hwang et al., 2013). Evidence for the importance of mutual disclosure is provided within the current sample through the participants who reported that their CPT was sharing intimate

information with them. For example, one participant reported about "the subject of our parents and our early childhood upbringing. I told Isabella that my parents were very tough and distant when I was a child and she confirmed that she had a similar relationship with her folks" (49-year-old male training for 4 months with a female CPT). It is likely that this level of mutual sharing allows for a closer bond based on common ground and shared experiences. Thus, it is possible that these CPTs feel comfortable enough with that specific client, or obligated, to reciprocate with personal details. Further, some clients even reported that they were the ones providing their CPT with support, "We talk about our children (his are 1 and 3 years old) and my grandchildren (who are 8, 12 and 14) and he occasionally asks for advice about raising his own children" (78-year-old female training for 28 months with a male CPT). While the current study does not investigate CPTs' perspectives, future studies should consider what types of disclosures CPTs share with their clients, why and how often they share, and whom they choose to share with. Regardless, the sharing of personal information is likely a key component of increasing the strength of the bond between the dyad, as support was given for the positive association between self-disclosure and perceptions of closeness.

The current results also provide initial evidence that CPTs have the *ability* to act as lay health educators (LHEs). Through repetitive and physically close interactions, LHEs have been shown to provide support and guidance to their clients in direct and indirect ways (Anderson et al., 2010; Beebe et al., 2018; Roberts-Dobie et al., 2018). For example, hair stylists and barbers have acted as LHEs to their clients concerning important health topics such as depression (Anderson et al., 2010), intimate partner violence (Beebe et al., 2018), cardiovascular health (Davis, 2011; 2013), and family

planning (Roberts-Dobie et al., 2018). In these spaces, clients often share personal information that hair stylists and barbers may recognize as threats to their clients' well-being or opportunities for further health education. These LHEs are often trained in direct interventions such as hypertension screening (Davis, 2011; 2013), as well as indirect intervention through providing professional community resources (Beebe et al., 2018) and various types of social support (Anderson et al., 2010).

Similarly, working with a CPT over an extended period of time with repetitive interactions may create a sense of vulnerability within clients. Clients may not only open themselves up to help within a fitness and physical health context, but they may also disclose intimate information concerning relational, substance abuse, and mental health issues. For example, one participant reported discussing "my partners negativity and emotional abuse" (35-year-old female training for 6 months with a female CPT), while another client reported, "Sometimes I am very unhappy with my personal life in total – not one specific thing but in whole" (66-year-old female training for 1 month with a male CPT). While these clients simply shared about the problems they were experiencing, CPTs should be trained to recognize potentially problematic disclosures. Further, other clients actively sought varying types of support from their CPT, with one client reporting, "Exercise is a critical part of keeping depression at bay, especially in the winter, and I would not be able to do it without a trainer" (61-year-old female training for 18 months with a male CPT). Research on LHEs suggests that clients are more likely to disclose intimate information with those they trust and feel close to (Beebe et al., 2018), and that clients benefit from receiving emotional and informational support and referrals to professional services (Anderson et al., 2010). Thus, given the types of disclosures that

clients reported sharing with their CPT in the current sample, CPTs are in a unique position to not only advance their clients' health from a physical standpoint, but they also have an opportunity to provide them with social support and referrals to professionals, depending on the disclosure. As such, future research should consider the impact of CPTs expressing various types of support to their clients upon intimate disclosures that represent greater health risks.

Another possible explanation for clients disclosing intimate information to their CPT is that clients are experiencing the halo effect (Thorndike, 1920), potentially perceiving their CPT to have abilities and knowledge unrelated to fitness training that can support them in other areas of their life. Often, the halo effect concerns individuals projecting positive attributes onto those they view as physically attractive (Han et al., 2018). Data from the current study suggest that some clients do find their CPT physically attractive, "I would say that telling him that I thought he was attractive and that I liked him that way was pretty intimate" (50-year-old male training for 4 months with a male CPT). Previous research suggests that clients often hire a CPT based on their physique, and often equate their physique with competence (Melton et al., 2011; Melton et al., 2008). Further, other studies suggest that the halo effect can stem from the perception of positive interpersonal qualities, such as support (Dagger et al., 2013), or from perceptions of high-quality performance (Rosenzweig, 2007). In the current sample, clients perceived their CPT to be supportive and competent regarding training, "[My trainer] helps me get thru [sic] workouts in a fun way so I actually do it. I have very little motivation and she definitely has helped me" (60-year-old female training for 1.5 months with a female CPT). Thus, it is possible that clients view their CPTs as having the ability to help them

in their personal lives, as some sought advice concerning family and romantic relationship issues. For example, one client reported discussing "my marriage [and] how he would handle certain situations" (50-year-old male training for 6 months with a male CPT). While this disclosure has no connection to the immediate training situation, this client still desired to receive advice from their CPT. Though, more research is necessary to know when and why clients disclose certain personal information to their CPT.

Practical recommendations. Several practical implications for CPTs stem from the disclosures revealed by clients in the current study. First, within the path model, clients' perceptions of support from their CPT were a stronger predictor of their experiences of self-expansion than clients' motivation and perceptions of closeness. Clients hire a CPT primarily to help transform their body and achieve their physical fitness goals (Melton et al., 2011). Based on these reasons, clients seek a CPT they believe can help them achieve those goals. Given that support was operationalized as availability and encouragement during exercise, CPTs should engage in behaviors that exemplify these characteristics. For example, during training sessions, CPTs should limit distractions and stay fully focused on their client. Smartphone use should be kept to a minimum, unless it is actively being utilized for exercise purposes, as numerous studies suggests that the mere presence or actual use of a smartphone can be problematic, such as reducing attention and task-performance (Thornton et al., 2014). Instead, CPTs should actively watch their clients perform the programmed exercises, offering feedback and making adjustments to ensure proper and safe movement. Similarly, CPTs should provide encouraging comments during and after the exercises to reinforce clients' behavior.

While support was a stronger predictor of self-expansion, clients' internal motivation was also positively associated with self-change. For many clients, maintaining motivation is often very difficult (Melton et al., 2008). As such, during the initial session, CPTs should ask clients about their goals for engaging in training. Once the goals are known, CPTs should help create smaller, more manageable goals for clients that build to the overall goal, commonly referred to as SMART goals (specific, measurable, attainable, relevant, timely; Swann et al., 2020). During the pursuit of these SMART goals, CPTs should continue to provide encouraging comments and help build the clients' necessary exercise skills to attain their goals. Once these smaller goals are reached, CPTs should celebrate their clients' success and provide further encouragement to help boost their clients' confidence and resilience. Once the overall goal is achieved, CPTs should help their clients create new goals and continue to show support. However, it is also recommended that CPTs hold their clients accountable for making it to training sessions and putting in the effort that is required if they want to reach their goals.

The path model also provides support for a deeper consideration of the biopsychosocial model of health (Engel, 1977, 1980). Working with a CPT may help an individual achieve the physical component of health by reducing the risk of obesity and its associated negative health outcomes, while simultaneously achieving the psychological component as exercise is associated with improved mental health outcomes (CDC, 2020). The clients in the current study who hired a CPT for strictly professional reasons likely achieve the physical and psychological components of health by working with their CPT. For example, one client reported, "I do not typically share intimate or extremely personal information with Jacqueline. My personal fitness and wellness goals

125

are probably the most personal information I share" (50-year-old female training for 6 months with a female CPT). The notion of wanting a strictly professional relationship is important as CPTs should be aware that too much closeness may result in less exercise support. As previously discussed, it is possible that a strong focus on the relationship may detract from task achievement. Thus, the clients who are only interested in a professional relationship may be able to forego any detrimental effects related to support that closeness may exhibit.

Yet, data from the current study also suggests that many clients *do* value and benefit from the social aspect that comes with working with a CPT. Specifically, the path model indicates a direct positive association between perceptions of closeness and experiences of self-change. Further, data from participants' disclosures highlight a level of friendship between the CPT and client. For example, one client reported, "She has become a close friend of mine. We share personal information as a close friend would" (65-year-old female training for 120 months with a female CPT). Thus, CPTs should be aware of and receptive to the type of relationship that their clients are interested in developing. One way to determine the type of relationship is through examining the types of disclosures they share. For example, if a client appears to be interested in disclosing their personal relationships and insecurities, it is likely they are more receptive to a friendly relationship, characterized by open sharing and support. Conversely, the clients that do not disclose personal information or stick to safer topics such as working out and sports likely prefer to keep the relationship professional. However, the CPT should be aware that their clients' intentions may change over time, such that a client who was not initially interested in friendship may end up disclosing very personal information and

seeking support and friendship from their CPT. Further, CPTs' perceptions also need to be considered, as CPTs may or may not be interested in a friendly relationship, as discussed further in the future directions section below.

As uncovered through the participants' intimate disclosures, clients may share personal information and expect to receive varying types of social support from their CPT, similar to friendship expectations. Previous research suggests that some clients feel they have no one else to share information with, which leads them to disclose to their CPT (Melton et al., 2008). Particularly, in the current study, clients often reported serious topics as death, grief, and mental health struggles. In these instances, clients are likely seeking connection and support. While CPTs are knowledgeable about and capable of working with clients with physical limitations, they are not trained on these other topics, leaving them potentially speechless. As such, CPT training programs should prepare their members for the possibility of navigating intimate disclosures.

The training programs typically discuss the importance of being personable and establishing closeness and trust with clients, typically through active listening (Melton et al., 2008; Weidner & Henning, 2002). On a positive note, results from the current study suggest that clients reported high mean levels of perceived CPT active-empathic listening. As previously mentioned, it is important for CPTs to possess empathy. A previous qualitative study found that females were more interested in hiring a female CPT because they believed that women were more likely and able to express empathy compared to males (Melton et al., 2011). Thus, it is particularly important for males to exhibit empathy to their clients to help eliminate this potential misconception.

To express empathy, CPTs should engage in several key behaviors. First, CPTs should limit their distractions, as discussed above. Second, CPTs should attempt to make eye contact with their client, when possible and culturally appropriate, to show they are actively engaged. The client may disclose while actively completing an exercise so eye contact may not be possible. Third, CPTs should utilize appropriate nonverbal behaviors that are associated with listening such as head nods and use continuer statements to encourage their clients to continue sharing. An active engagement with the client will likely make them feel appreciated and important.

While a large part of empathy consists of nonverbal behavior, there are also verbal statements that can express empathy. A CPT should avoid phrases that start with "at least" and cliché statements that display a lack of understanding for their clients' situation, such as, "Everything happens for a reason" or "The grass is always greener on the other side." Instead, empathic responses begin with an attempt to understand the situation from the individual's perspective and acknowledge the emotions they are experiencing and expressing. For example, one client reported, "I have autoimmune illnesses and I always update her on how I'm feeling so she can tailor that day's work out" (60-year-old female training for 1.5 months with a female CPT). Some recommended statements for expressing empathy include, "This really must be difficult," "I appreciate you sharing this with me," and "How are you feeling about this?" Often, emotional and companionship support are beneficial by just being an active-empathic listener to help the client work through their thoughts and emotions, as one client reported, "I'm almost as open with her as I am with my psychiatrist [as I can] just vent a lot of the time" (24-year-old female training for 12 months with a female CPT).

128

At times, instrumental and informational support are requested via specific advice. For example, one client reported, "I talk to her about my relationship with my husband and once in a while seek her advice on marital problems my husband and I may have at that moment" (39-year-old female training for 5 months with a female CPT). However, CPTs should not offer advice unless specifically asked. Statements such as, "I'm here for you" and "Is there anything I can do to support you?" should be offered first, as tangible support is not always wanted. Though, in the cases where instrumental and informational support are requested, CPTs should familiarize themselves with community resources. For example, LHEs in other fields have specific knowledge about intimate issues that clients may disclose (e.g., intimate partner violence; Beebe et al., 2018) and can refer clients to necessary resources, such as mental health services (Anderson et al., 2010; Roberts-Dobie et al., 2018). Within the current sample, several participants reported discussing issues surrounding mental health and associated behaviors. For example, one client reported, "Self-regulation can be quite difficult for me due to my obsessive-compulsive thinking . . . I feel as though I can endure a lot, but sometimes, I think it's more counterproductive to my goals" (31-year-old female training for 20 months with a male CPT). Thus, training programs should include instruction on how to recognize when specific types of support may be necessary, how to engage in said types of support, and should be required to become informed about their local resources, such as medical, psychological, and relationship professionals, to ensure they can fully support their clients if and when they choose to disclose such topics. If sections such as those addressed above are included in CPT training, perhaps CPTs will feel more confident and capable of navigating their clients' disclosures.

Results from the current study reinforce previous research that suggests that CPTs should possess strong interpersonal skills, such as active listening and empathy (Melton et al., 2011; Melton et al., 2008), as well as supplements that research by providing specific disclosures that CPTs may encounter. Further, results from the path model suggest that self-disclosure is positively associated with closeness, suggesting that clients feel closer to their CPT through continuous and deeper disclosures. Thus, it is likely that those who hire a CPT and perceive a deeper connection and level of friendship may achieve all three components of the BPS model of health. As exercise leaders, CPTs should adapt their style and approach to the specific needs of their clients.

Limitations

The current study has several limitations to consider including the sample, measures, and study design. First, structural equation modeling and path analysis require a large data set. While the current sample was fairly large ($N = 392$), researchers recommend having approximately 20 times the number of participants as parameters to be estimated (Kline, 2015), with a minimum requirement of 10 times the number of participants as parameters (Streiner, 2005). The current study had a participant-to-parameter ratio of approximately 11:1. Thus, it is likely the study would have benefitted from a larger sample, as sample size impacts statistical power, model fit, and parameter values (Wolf et al., 2013).

Additionally, the current study utilized two different recruitment platforms, Amazon's Mechanical Turk and ResearchMatch. This decision was made based on the initial low recruitment levels on MTurk, possibly due to the platform and study qualification criteria. The ResearchMatch platform was utilized as it is a recruitment

platform designed specifically for health-related research. However, further analysis of the recruitment platforms revealed numerous significant differences on key study variables that may have impacted the study's results. Specifically, MTurk participants reported significantly higher levels of external motivation, perceptions of closeness, and feelings of attachment anxiety compared to ResearchMatch participants, while ResearchMatch participants reported significantly higher levels of internal motivation, perceptions of support, experiences of self-expansion, and feelings of attachment security compared to MTurk participants. ResearchMatch participants were also significantly older compared to MTurk participants, and MTurk participants completed the survey significantly faster compared to ResearchMatch participants. However, the direct influence of recruitment platform is unclear as it was not included as a predictor variable in the path model, resulting in systematic error. Thus, the results are likely biased, either masking an effect that exists or suggesting an effect that is not truly present (Barber et al., 2013).

Similarly, several of the demographic characteristics of the full sample present generalizability concerns. Specifically, a majority of the sample was female (68.6%), highly educated, self-identified as White (77.1%), and reported a high income (e.g., 23.9% above $100,000 annually). Additionally, there was a strong positive skew regarding the length of relationship with their CPT ($M = 18.32$, $SD = 24.63$, range = 0.25 – 156.00 months, median = 9.0 months). These features of the sample likely limit the study's ability to generalize to the diverse population of fitness clients. While an attempt was made to recruit a more demographically diverse sample, future studies should consider alternative and various recruitment techniques to obtain a representative sample.

Further, future research should seek diversity regarding gender identification and sexual affiliation. The current study included those who self-identified as bisexual (7.7%), same-sex affiliated (4.3%), asexual (1.0%), pansexual (0.8%), and initially, three participants that self-identified as gender non-binary. Given the reported nature of intimate disclosures regarding mental health, relationship issues, and sexual experiences, future studies should consider if and how intimate disclosures differ among these various groups and identities.

Related to the study's measures, it is important to note that study employed self-report measures to capture participants' behaviors, attitudes, and beliefs. Utilizing self-report measures can introduce bias. Specifically, some participants may have attempted to make themselves appear more favorable or competent (social desirability bias; King & Bruner, 2000), while others may have experienced difficulty remembering specific interactions or disclosures (recall bias; Raphael, 1987). Additionally, several subscales showed poor measurement reliability, particularly the intrusiveness subscale ($\alpha = .60$) of the Secure Base Characteristics Scale (SBCS; Feeney & Thrush, 2010) and the self-pruning subscale ($\alpha = .64$) of the relational Self-Change Scale (Mattingly et al., 2014). Structural equation modeling assumes high scale reliability and models are often only as strong as the scales that are utilized (Meyers et al., 2017). The intrusiveness subscale was removed from the support measure, leaving availability and encouragement in the composite measure. While the resultant composite measure had strong reliability ($\alpha = .85$), future studies should further examine the role of intrusiveness in professional contexts as it was problematic in the current context and sample. Additionally, the self-pruning subscale remained in the current analyses, but the low reliability likely

132

negatively influenced the results due to additional error variance being unaccounted for. The attenuation of measurement error process was conducted during the first re-specification attempt to increase the low scale reliabilities, improve model fit, and strengthen path coefficients. While this attempt was ultimately unsuccessful in producing adequate model fit, future studies should pay particular attention to ensuring as strong of scale reliability as possible.

Finally, another limitation was the study's design, namely its cross-sectional nature. Path analysis attempts to show causality with cross-sectional data through simultaneous multiple regression equations (Meyers et al., 2017). However, as this was a one-time survey, causality cannot be determined as the time order and control over competing explanation requirements are absent. Instead, future studies should engage in a more controlled and longitudinal study design to determine the specific nature of the self-expansion process within the personal training context. While the current study provides initial evidence for a plausible path, collecting data at multiple time points will provide even greater support for the self-expansion model.

Future Directions

Future studies are necessary to develop an accurate model of the full self-expansion process. The current study provided support for several variables such as internal motivation, self-disclosure, and support. However, the failure of the model to achieve adequate global fit suggests that other essential variables are missing from the model. As the current study only examined the relational closeness component of self-expansion, future studies should incorporate the activities component as the addition may help the model achieve adequate fit. Further, a closer investigation is needed for the role

133

of closeness in professional and service relationships, particularly when the role of the professional is to provide support. Future studies should also consider what other relational variables, aside from closeness, may contribute to the self-expansion process. A comparison of models across various contexts is essential to further develop an understanding of the utility of the self-expansion model.

Future research should also investigate the disclosures that take place within the dyad from both the clients' and CPTs' perspectives. Research on LHEs suggests that disclosure occurs because of repeated and friendly interactions with clients (Anderson et al., 2010; Beebe et al., 2018). However, within the current context, future studies should examine not only what the client chooses to share, but when and why did they disclose or believe that they should share that information with their CPT. Post-disclosure, future research should examine how the CPTs respond to their clients. As previously discussed, CPTs stand to benefit from training on how to navigate intimate disclosures to ensure their clients receive the type of support they seek. Thus, future research should consider not only the CPT's response to their client but the perception of the client about the type and quality of support received following the disclosure. Within this context, it remains unclear if the perception of high-quality responses and support lead to future disclosures, increased relational satisfaction and closeness, and potentially increased exercise effort and goal achievement (self-expansion) for clients.

Similarly, regarding client disclosures, there were several instances of clients mentioning romantic and sexual interest in their CPT. As such, future studies should consider exploring the varying levels of friendship and the potential romantic and or sexual relationships that develop within the client-CPT relationship. Anecdotally, there

were two startling revelations by one of the undergraduate research assistants. Specifically, she discussed two separate stories about clients going through a divorce because they had affairs with their CPT. These examples are interesting to consider, as prior research with CPTs and female clients suggests that females find sexual comments, flirting, and excessive touching by male trainers to be unethical and unprofessional (Melton et al., 2011; Melton et al., 2008). Though anecdotal, from a relational communication perspective, more information is needed to understand the dynamics of how and why these professional relationships turn into romantic or sexual relationships.

Finally, many clients reported a transition from in-person to virtual training due to the COVID-19 pandemic. While this transition was welcomed and appreciated by some clients out of concern for their safety and well-being, other clients reported being frustrated with strict governmental regulations that often altered their routine and progress. Participants also reported that their CPT utilized CMC to send workout plans and check-in with and support them. With this new information about technology use, future studies should consider the impact that technology has on training adherence and client-CPT relationship quality, and how CMC is utilized to support clients, regardless of in-person or virtual training.

Conclusion

The current study had two primary goals. The first goal was to create a path model of the self-expansion process in an understudied relational context, personal fitness training. Results from the study suggest that the proposed self-expansion model did not adequately fit the data. However, further examination of the model's local fit suggests that clients do experience self-expansion through working with their CPT. Specifically,

clients' internal motivation is positively associated with their experiences of self-disclosure, self-expansion, and self-pruning. Clients' self-disclosure is also positively associated with their perceptions of closeness and support from their CPT. Contrary to expectations, within the current sample, clients' perceptions of closeness were negatively associated with their perceptions of support from their CPT. This finding may stem from the level of professionalism that many clients reported desiring from their CPT, resulting in lower levels of closeness but higher levels of support during exercise. A similar possibility is a stronger focus on the relationship may detract from the task, such that too much closeness is negatively associated with support with exercise. Finally, perceptions of closeness and support were both positively associated with experiences of self-expansion and self-pruning.

The second goal of the study was to determine the types of conversations and disclosures that take place between clients and their certified personal trainers. The study utilized a combination of pre-selected topics and open-ended responses for clients to report the frequency of common conversations and share the most intimate or personal information they have shared with their CPT. An analysis of the pre-selected conversation topics suggests that clients mainly have conversations surrounding their physical health based on the topics of exercise, diet and nutrition, and health issues or concerns. However, while several topics were reported being discussed at lower rates such as romantic relationships and sex, results from the open-ended response suggest that clients do disclose fairly intimate information to their CPT. Specifically, nine themes were generated surrounding the intimate disclosures that clients reported, including body dysmorphia, loss and grief, mental health, personal relationships, physical health,

professionalism, support seeking, trainer sharing, and trust. Results suggest that some clients view their CPT as a close friend or someone capable of providing them with support regarding the many personal, and often difficult, situations they are experiencing in their lives.

While the current study provided mixed support for the utility of self-expansion in a new context, many questions remain about the process through which self-expansion occurs, particularly when taking into account recent research that suggests other essential variables. Future studies should continue to operationalize motivation to determine how and why some individuals are more motivated to self-expand compared to others. Additionally, further examination of the role of, and the interplay between, closeness, support, and other relational variables is warranted. From a practical perspective, personal training programs should implement a stronger focus on the establishment and maintenance of the client-CPT relationship from an interpersonal standpoint, as the current study revealed that self-disclosure, closeness, and support are essential components that help clients experience self-expansion. Further, training programs should recognize that their CPTs have the ability to function as lay health educators based on the types of disclosures clients may share with their CPT. Requiring CPTs to be aware and capable of providing different types of support, as well as having knowledge of external resources and services in their community in the event of consequential disclosures, will likely result in even greater client self-expansion above and beyond achieving their exercise and fitness goals.

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142

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APPENDIX A

IRB APPROVAL FORM

EXEMPTION GRANTED

Bradley Adame
CLAS-SS: Human Communication, Hugh Downs School of -
badame@asu.edu

Dear Bradley Adame:
On 11/19/2020 the ASU IRB reviewed the following protocol:

Type of Review: Initial Study	
Title:	Relationship Fit: Clients' Experiences of Self- Expansion Through Working with a Certified Personal Trainer
Investigator: Bradley Adame	
IRB ID: STUDY00012952	
Funding: Name: Graduate College (GRAD)	
Grant Title:	
Grant ID:	
Documents Reviewed:	• Consent Form, Category: Consent Form; • Full List of Measures, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Grad Student Award Notice, Category: Grant application; • Grad Student Research Award Application, Category: Grant application; • IRB Social Behavioral, Category: IRB Protocol; • Pandemic Funding Application, Category: Grant application; • Pandemic Impact Award Notice, Category: Grant application; • Recruitment Script, Category: Recruitment Materials;

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 11/19/2020.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

If any changes are made to the study, the IRB must be notified at research.integrity@asu.edu to determine if additional reviews/approvals are required. Changes may include but not limited to revisions to data collection, survey and/or interview questions, and vulnerable populations, etc.

Sincerely,

IRB Administrator

cc: Kevin Shufford

Paul Mongeau

Ashley Randall

Kevin Shufford

APPENDIX B

MODIFIED IRB APPROVAL FORM

EXEMPTION GRANTED

Bradley Adame
CLAS-SS: Human Communication, Hugh Downs School of -
badame@asu.edu

Dear Bradley Adame:
On 12/14/2020 the ASU IRB reviewed the following protocol:

Type of Review: Modification / Update	
Title:	Relationship Fit: Clients' Experiences of Self- Expansion Through Working with a Certified Personal Trainer
Investigator: Bradley Adame	
IRB ID: STUDY00012952	
Funding: Name: Graduate College (GRAD)	
Grant Title: None	
Grant ID: None	
Documents Reviewed:	• Consent Form (Research Match), Category: Consent Form; • IRB Social Behavioral, Category: IRB Protocol; • Recruitment Script (Research Match), Category: Recruitment Materials;

The IRB determined that the protocol is considered exempt pursuant to Federal
Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 12/14/2020.

In conducting this protocol you are required to follow the requirements listed in the
INVESTIGATOR MANUAL (HRP-103).

If any changes are made to the study, the IRB must be notified at
research.integrity@asu.edu to determine if additional reviews/approvals are required.
Changes may include but not limited to revisions to data collection, survey and/or
interview questions, and vulnerable populations, etc.

Sincerely,

IRB Administrator

cc: Kevin Shufford

Paul Mongeau

Ashley Randall

Kevin Shufford

APPENDIX C

TABLE 2 – DEMOGRAPHIC INFORMATION WITH RECRUITMENT PLATFORM

SPLIT

Table 2

Demographic Information with Recruitment Platform Split (N = 392)

	Full Sample (N = 392)	MTurk (n = 122)	ResearchMatch (n = 270)
Age (years)			
Mean (*SD*)	45.84 (15.79)	37.22 (9.27)	49.74 (16.57)
Range	20.00 – 88.00	23.00 – 61.00	20.00 – 88.00
Sex and gender, n (%)			
Female	269 (68.6%)	60 (49.2%)	209 (77.4%)
Male	123 (31.4%)	62 (50.8%)	61 (22.6%)
Race, n (%)			
American Indian or Alaska Native	1 (0.3%)	1 (0.8%)	-
Asian	19 (4.8%)	9 (7.4%)	10 (3.7%)
Black or African American	44 (11.2%)	18 (14.8%)	26 (9.6%)
Latinx	15 (3.8%)	4 (3.3%)	11 (4.1%)
Multiracial	11 (2.8%)	2 (1.6%)	9 (3.3%)
White	302 (77.1%)	88 (72.1%)	214 (79.2%)
Education, n (%)			
High school diploma	22 (5.6%)	12 (9.8%)	10 (3.7%)
Some college	30 (7.7%)	12 (9.8%)	18 (6.7%)
Two-year degree	30 (7.7%)	7 (5.7%)	23 (8.5%)
Four-year degree	153 (39.0%)	70 (57.4%)	83 (30.7%)
Master's degree	102 (26.0%)	18 (14.8%)	84 (31.1%)
Doctorate degree	30 (7.7%)	1 (0.8%)	29 (10.7%)
Professional degree	25 (6.4%)	2 (1.6%)	23 (8.5%)
Employment status, n (%)			
Active military or veteran	4 (1.0%)	2 (1.6%)	2 (0.7%)
Disabled	11 (2.8%)	-	11 (4.1%)
Employed full time	240 (61.2%)	98 (80.3%)	142 (52.6%)
Employed part time	44 (11.2%)	17 (13.9%)	27 (10.0%)

Retired	58 (14.8%)	1 (0.8%)	57 (21.1%)
Student	16 (4.1%)	-	16 (5.9%)
Unemployed looking for work	11 (2.8%)	1 (0.8%)	10 (3.7)
Unemployed not looking for work	7 (1.8%)	3 (2.5%)	4 (1.5%)
Income, *n* (%)			
Less than $10,000	18 (4.6%)	1 (0.8%)	17 (6.3%)
$10,000 – $19,999	16 (4.1%)	5 (4.1%)	11 (4.1%)
$20,000 – $29,999	32 (8.2%)	18 (14.8%)	14 (5.2%)
$30,000 – $39,999	43 (11.0%)	20 (16.4%)	23 (8.5%)
$40,000 – $49,999	40 (10.2%)	17 (13.9%)	23 (8.5%)
$50,000 – $59,999	39 (9.9%)	21 (17.2%)	18 (6.7%)
$60,000 – $69,999	31 (7.9%)	10 (8.2%)	21 (7.8%)
$70,000 – $79,999	32 (8.2%)	10 (8.2%)	22 (8.1%)
$80,000 – $89,999	25 (6.4%)	8 (6.6%)	17 (6.3%)
$90,000 – $99,999	15 (3.8%)	3 (2.5%)	12 (4.4%)
$100,000 – $149,999	48 (12.2%)	7 (5.7%)	41 (15.2%)
More than $150,000	46 (11.7%)	2 (1.6%)	44 (16.3%)
Sexual affiliation, *n* (%)			
Asexual	4 (1.0%)	-	4 (1.5%)
Bisexual	30 (7.7%)	12 (9.8%)	18 (6.7%)
Gay	9 (2.3%)	3 (2.5%)	6 (2.2%)
Heterosexual (straight)	331 (84.4%)	102 (83.6%)	229 (84.8%)
Lesbian	8 (2.0%)	1 (0.8%)	7 (2.6%)
Pansexual	3 (0.8%)	1 (0.8%)	2 (0.7%)
Prefer not to state	7 (1.8%)	3 (2.5%)	4 (1.5%)
Relationship status, *n* (%)			
Casually dating	27 (6.9%)	5 (4.1%)	22 (8.1%)
Divorced/separated	26 (6.6%)	8 (6.6%)	18 (6.7%)
Engaged	10 (2.6%)	2 (1.6%)	8 (3.0%)

In a committed relationship	60 (15.3%)	16 (13.1%)	44 (16.3%)
Married	190 (48.5%)	71 (58.2%)	119 (44.1%)
Single/never married	69 (17.6%)	19 (15.6%)	50 (18.5%)
Widowed	10 (2.6%)	1 (0.8%)	9 (3.3%)
Relationship length with CPT (months)			
Mean (*SD*)	18.32 (24.63)	10.62 (10.29)	21.80 (28.20)
Median	9.00	6.50	9.50
Range	0.25 – 156.00	0.50 – 60.00	0.25 – 156.00
Number of training sessions			
Mean (*SD*)	101.74 (178.45)	54.01 (108.50)	123.46 (198.86)
Median	40.00	24.00	50.00
Range	2.00 – 1,200.00	2.00 – 1,000.00	2.00 – 1,200.00
Training context, *n* (%)			
Group training	53 (13.5%)	16 (13.1%)	37 (13.7%)
In-home	64 (16.3%)	27 (22.1%)	37 (13.7%)
Traditional/commercial gym	159 (40.6%)	55 (45.1%)	104 (38.5%)
Virtual/remote or social media	93 (23.7%)	22 (18.0%)	71 (26.3%)
Other	23 (5.9%)	2 (1.6%)	21 (7.8%)
Perception of trainer's sex for females, *n* (%)			
Female	125 (46.5%)	25 (20.5%)	100 (37.0%)
Male	144 (53.5%)	35 (28.7%)	109 (40.4%)
Perception of trainer's sex for males, *n* (%)			
Female	33 (26.8%)	8 (6.6%)	25 (9.3%)
Male	90 (73.2%)	54 (44.3%)	36 (13.3%)
Perception of trainer's gender for females, *n* (%)			
Female	124 (46.1%)	26 (21.3%)	98 (36.3%)
Male	143 (53.2%)	34 (27.9%)	109 (40.4%)
Genderqueer or gender non-conforming	-	-	-
Do not know	2 (0.7%)	-	2 (0.8%)
Perception of trainer's gender for males, *n* (%)			
Female	30 (24.4%)	7 (5.7%)	23 (8.5%)
Male	91 (74.0%)	54 (44.3%)	37 (13.7%)
Genderqueer or gender non-conforming	1 (0.8%)	-	1 (0.4%)
Do not know	1 (0.8%)	1 (0.8%)	-

166

APPENDIX D

RECRUITMENT EMAIL

Hello,

I am a graduate student under the direction of Dr. Bradley Adame in the Hugh Downs School of Human Communication and Dr. Ashley Randall in Counseling and Counseling Psychology at Arizona State University. I am conducting a research study to investigate the fitness trainer-client relationship.

I am recruiting individuals to partake in an online survey that will take approximately 20 minutes to complete. To participate, you must be

(1) at least 18 years of age,
(2) able to read and write in English, and
(3) currently training with a certified personal trainer.

For your participation, you will be awarded $2 (MTurk) or you will be entered into a drawing for the chance to win a $15 Amazon e-gift card (ResearchMatch)

Thank you for your interest.

Kevin Shufford

APPENDIX E

CONSENT FORM

Relationship Fit

Hello,

I am a doctoral candidate working under the direction of Dr. Bradley Adame in the Hugh Downs School of Human Communication and Dr. Ashley Randall in Counseling and Counseling Psychology at Arizona State University. I am conducting a research study to gain information about the fitness trainer-client relationship.

I am inviting your participation in a survey, which will involve filling out some demographic questions about yourself (e.g., gender, ethnicity) as well as filling out a questionnaire that asks you to report on your personal characteristics and your perceptions of your relationship with your certified personal trainer. The online survey should take approximately 20 minutes to complete. For your participation, you will be awarded $2 (MTurk) or be entered into a random drawing for a $15 Amazon e-gift card (ResearchMatch).

Your participation in this study is voluntary. Your responses are confidential. We will not ask your name or any other identifying information in this survey. For award purposes, you will be directed to a new survey where you will enter your email address; this data will be deleted as soon as it is reasonably possible. You can skip questions or decide not to participate at any time. There will be no penalty if you decide not to participate or withdraw from the study.

To participate you must (a) be at least 18 years of age, (b) be able to speak and read English, and (c) be a current client of a certified fitness trainer. Although there is limited benefit to you, this research is likely to add to a growing body of knowledge on sports communication. There are no foreseeable risks or discomforts to your participation.

If you have any questions concerning the research study, please contact Kevin Shufford at kshufford@asu.edu or Bradley Adame at badame@asu.edu. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

Selecting "I wish to participate" below is considered your consent to participate. If you do not wish to participate, please close the survey window.

Thank you,

Kevin Shufford

APPENDIX F

TABLE 11 – OVERVIEW OF INTIMATE DISCLOSURE (SUB-) THEMES AND

SAMPLE RESPONSES

Table 11

Overview of Intimate Disclosure (Sub-) Themes and Sample Responses

Prominent Themes	Sub-Themes	Sample Responses
Body Dysmorphia *n* = 13		The most intimate or personal information that I have shared with Kurt was about having an eating disorder in college and its physical, mental and emotional effects on me. (29-year-old female training for 6 months with a male CPT)
		She knows my issues I've had with self-consciousness around my body image. She's seen me cry over that, over men, over my mental health struggles. Not everyone knows I'm on medication, but she does. She's been a good support through all of it. (26-year-old female training for 20 months with a female CPT)
		I told him about my dark thoughts about my own body and the negative things that I think about it, and how much I hate it. (31-year-old male training for 14 months with a male CPT)
Loss and Grief *n* = 18		I probably would say this is a discussion about my dad's cancer and dealing with grief when he is gone, which will be soon. She has a relative that recently passed from cancer. (39-year-old female training for 8 months with a female CPT)
		I have discussed my husband and father's deaths. I was very depressed with both and used to weight 240 lbs. - now 180 lbs. Working on myself. (72-year-old female training for 26 months with a female CPT)
		The most personal thing I've ever shared with Darius was the loss of one of my family members and how it effected [affected] me. I shared details about the events, how it made me feel, and still how to this day I have trauma. I explained how I have to overcome certain feelings everyday just to move forward. It was something very personal to me that I rarely ever tell people. (32-year-old male training for 8 months with a male CPT)
Mental Health *n* = 26	Fears *n* = 6	I talked to him about my fears of not being able to keep up with everyone else when I get old. I was really worried that I physically might deteriorate worse then [than] others if I don't start taking care of my health now. (25-year-old female training for 8 months with a male CPT)
		About my fears concerning my Mother and her health - about my own fears concerning staying healthy. (63-year-old female training for 48 months with a female CPT)
		Fears: Gaining weight, inability to recover, work frustrations. (59-year-old female training for 72 months with a male CPT)
	Insecurities *n* = 20	I revealed that I am afraid to allow myself to meet someone to spend my life with for the fear that I am not desirable enough. (35-year-old female training for one month with a female CPT)
		I told him about my failed relationships and how I was fearful of getting into any new relationships before getting back into shape. (57-year-old female training for 6 months with a male CPT)
Personal Relationships *n* = 98		Feelings of insecurities regarding training. My feelings of inadequacy regarding training. My rare disease and concerns surrounding it. (46-year-old male training for 6 months with a male CPT)
	Family *n* = 41	Probably that my husband complains that I work out. He doesn't like me being away from home and him having to watch our almost 2-year-old for an hour. (36-year-old female training for 5 months with a male CPT)
		Just that I felt like I had not been myself since having kids. Something that a lot of my family and friends do not even know. (32-year-old female training for 12 months with a male CPT)
		We've had extensive conversations about my issues with my overbearing future mother-in-law. He had a similar situation with his mom when he first got married, so he gives me a lot of good advice. (31-year-old female training for 24 months with a male CPT)
	Romantic *n* = 57	I told her that I got divorced because my husband was repeatedly unfaithful with prostitutes. (52-year-old female training for 35 months with a female CPT)
		I almost cheated on my wife and I told Dane all the details. (40-year-old male training for 4 months with a male CPT)
		Breaking up with a man who was physically/emotionally abusive. (24-year-old female training for 18 months with a male CPT)
Physical Health *n* = 27	Illness and Disease *n* = 11	That I have fibromyalgia and try to hide it from people. (51-year-old female training for 24 months with a female CPT)
		I have headaches and sezuires [seizures] a lot and my muscles do not work very good [well]. (41-year-old female training for 9 months with a female CPT)
		Issues related to Parkinson's Disease. (79-year-old male training for 9 months with a female CPT)

172

Professionalism $n = 60$		I tend to keep to business; I know I need direction and help with workouts and areas of or for improvement. (72-year-old male training for 15 months with a female CPT)
		I never shared anything intimate. I kept it professional. (41-year-old female training for 3 months with a female CPT)
		I make it a point to not share personal and intimate information. I am paying for exercise training not to get a friend. (31-year-old male training for 6 months with a female CPT)
Support Seeking $n = 16$		I was upset after an argument with my husband and he was there as a shoulder to lean on. He was respectful, took me out to a park lunch and we just ate and laughed. (48-year-old female training for 28 months with a male CPT)
		I have disclosed personal feelings with her regarding my health, exercise regimen of feeling like I will fail or have a hard time doing it with some of my body's health conditions. (36-year-old female training for 12.5 months with a female CPT)
Trainer Sharing $n = 13$		During my training with Steve I try to discuss my family and my work-related issue with him in order for him to tell me how to go about it. (40-year-old male training for 6 months with a male CPT)
		Actually, it is/was the reverse. She has/had a troubled relationship and I would ask how it was going and then would listen while I worked out. (69-year-old male training for 18 months with a female CPT)
		I was helping him navigate the relationship with his pregnant partner. (63-year-old female training for 39 months with a male CPT)
		Kelley and I have become friends over the years, so we talk about family, relationships, her kids. Most of the conversations are about her life. I have discussed my marriage and kids with her, but not that often. We bought a condo in same development, so we are neighbors and she knows my family. (67-year-old female training for 48 months with a female CPT)
Trust $n = 51$	Coming Out $n = 5$	I have shared that I am gay (I am closeted to my family). (26-year-old female training for 1.5 months with a male CPT)
		I shared information about my sexual orientation which was not something that many people were aware of, and I had just started coming out to family and friends. (36-year-old female training for 72 months with a male CPT)
		Coming out as a gay male. (69-year-old male training for 3 months with a male CPT)
	Friendship $n = 10$	Max has been a close friend outside of our client/trainer relationship so our discussions easily flow between friendship and client/trainer relationship. (57-year-old female training for 24 months with a male CPT)
		We are very open about our lives and talk about issues with each other. We became pretty close friends because of that. I told him about my family issues and he told me his. (29-year-old male training for 12 months with a male CPT)
		Yes he is my trainer but obviously my friend. (47-year-old male training for 3.75 months with a male CPT)
	Sexual Desires and Experiences $n = 22$	I would say that telling him that I thought he was attractive and that I liked him that way was pretty intimate. I really felt that if he was into it that we might have an affair but he was definitely going to be faithful to his partner. I needed to be too - but he is so inticing [enticing]. (50-year-old male training for 4 months with a male CPT)
		My relationship partner is also a client of Kelly's (he joined her team a year before he and I met). So, she knows we spend a lot of time together, and that includes sex. My partner and I have joked about wearing our heart-rate monitors during sex, then uploading the data to our online training app and call it "cross training." (62-year-old female training for 96 months with a female CPT)
	Sharing Secrets $n = 9$	My lifestyle was very messy during the time I trained with him but he came to fix it. In solitude he and I were passionate sex and fell in love. (48-year-old female training for 25 months with a male CPT)
		He was pretty much the first one to know I was pregnant both times, prior to telling any friends or family (besides my husband). (35-year-old female training for 69 months with a male CPT)
		Trying to kill myself when I was 15. (49-year-old male training for 100 months with a male CPT)
		I told him I was HIV positive. (30-year-old female training for 5 months with a male CPT)

Note: Sixteen responses were not accounted for in the Illness and Disease sub-theme of Physical Health. Five responses were not accounted for within the Trust sub-themes. Participant's age, gender, relationship length with CPT, and their perception of their CPT's gender identity are provided in parentheses following their sample response.

173