

Abbreviations

TA	Therapeutic Alliance	UC	Usual Care
PCCP	Patient-Centered Care Planning	WOMAC	Western Ontario and McMaster Universities Arthritis Index
PCC	Patient-Centered Care	PASE	Physical Activity Scale for the Elderly
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders Fourth Edition	ODI	Oswestry Disability Index
IRM	Intentional Relationship Model	EQ5D	European Quality of Life 5 Dimensions Questionnaire
PT	Physical Therapy / Physical Therapist	MIC	Maximal Information Coefficient
UCLA GAS	University of California: Los Angeles Geriatric Attitudes Scale	TUG	Timed "Up and Go" Test
MCI	Mild cognitive impairment	CBT	Cognitive Behavioral Therapy
AD	Alzheimer's Disease	WATOCI	Working Alliance Theory of Change Inventory
BEEP	Benefits of Effective Exercise for Knee Pain clinical trial	WAI	Working Alliance Inventory
RCT	Randomized control trial	PSFS	Patient Specific Functional Scale
ITE	Individually tailored exercise	HAQ-II	Helping Alliance Questionnaire Version II
TEA	Targeted exercise adherence	BREQ-2	Behavioral Regulation in Exercise Questionnaire-2
N/A	Not applicable	I ²	Heterogeneity Interpretation
95% CI	95% Confidence Interval	SMD	Standard Mean Difference
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses	SF-36	36-Item Short Form Health Survey

SDT	Self Determination Theory	CASP	Critical Appraisals Skills Programme
OT	Occupational Therapy / Occupational Therapist	N-SAMQ	Norwegian Self-Assessment of Modes Questionnaire
WHO	World Health Organization	IRM	Intentional Relationship Model
TR	Therapeutic Relationship	ALF	Assisted Living Facility

Working Definitions: The following terms are often used interchangeably throughout the literature. While there is overlap between these constructs, there are also some subtle differences between them. From the literature reviewed in this evidence table, we will develop a comprehensive definition of these constructs. For the purpose of the evidence table, we have maintained the authors' original definitions and use of these terms. In our capstone presentation, we will use our definition of these terms as we feel the literature best supports them.

Therapeutic Alliance (TA): From Portcaolone 2020: "A medical provider and a patient are involved in a therapeutic alliance when they agree on the 'goals of the treatment [and] the tasks needed to accomplish those goals,'¹ and as well, share a 'personal bond.'"² Hall and Taccolini both use Bordin's assertion that the 3 main constructs of the alliance include agreement on goals and treatment between patient and provider, agreement on interventions, and the presence of an affective bond between the patient and provider.³

Therapeutic Relationship (TR): As noted in Josephson, prior research from Sidani and Fox define the TR as a "relationship in which trust and nurturing is foundational, respect is mutual, and information that will guide the planning, implementation and evaluation of care is exchanged by both parties"^{4, 5}

Person-Centered Care: It is important to distinguish "person-centered care" and "patient-centered care" (PCC). As compared to "patient-centered care" that focuses solely on medical and clinical needs, "person-centered care" works to "encompass the entirety of a person's needs and preferences, beyond just the clinical or medical"⁶. Person-centered care means that "individuals' values and preferences are elicited and, once expressed, guide all aspects of their health care, supporting their realistic health and life goals"⁶⁻⁸. This is supported by a "dynamic relationship among individuals, others who are important to them, and all relevant providers"⁶⁻⁸. As noted in Hamovitch et al., the most well-known definition of person-centered care comes from the World Health Organization (WHO) that states person-centered care is "approaches and practices that see the person as a whole with many levels of needs and goals, with these needs coming from their own personal social determinants of health"^{9, 10}

General Therapeutic Alliance

Hamovitch et al. Person-Centered Care and the Therapeutic Alliance. 2018.¹⁰

Purpose & Study Design: The purpose of this mixed-methods (qualitative and quantitative design) study was to analyze the correlation of how the therapeutic alliance (TA) contributes to PCCP as well as how the TA affects the processes and outcomes of PCCP.

Subjects:

Quantitative: The subjects included tenants of 4 assisted-housing programs. Participants were required to meet inclusion criteria of age > 18 years, English as their primary language, proof of residency in the assisted-housing program, and DSM-IV axis I mental health diagnosis.

Qualitative: The subjects included tenants and employees from the assisted-housing programs. Inclusion criteria for the tenants was the same as the quantitative study. Inclusion criteria for the employees included positions as service coordinators providing direct care to tenants and/or supervisors overseeing direct care to tenants.

Outcome Measures & Measurement Time (if applicable):

Quantitative: The outcome measures utilized for gauging TA, PCCP, and symptomatology were the Working Alliance Inventory Short Form (WAI), PCC Questionnaire, and The Colorado Symptom Index, respectively. The WAI measures 3 aspects including “(a) agreement on the tasks of therapy, (b) agreement on the goals of therapy, and (c) development of an affective bond between patient and therapist.” All items are associated with a 5-point Likert scale ranging from 1 (rarely or never) to 5 (always). Higher scores relate to a stronger TA. The PCC Questionnaire is a 32-item questionnaire consisting of a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Colorado Symptom Index evaluates symptoms of advanced mental illness.

Qualitative: This involved the questions that were asked amongst focus group discussions.

Description of Intervention(s):

Quantitative: One-time, structured interviews were conducted with participants for 45-90 minutes total at the assisted-housing programs. Content of the interviews included topics of TAs, PCCP, and symptomatology.

Qualitative: Both tenant-direct and employee-directed focus groups were conducted with discussions lasting one hour. Focus groups sought to evaluate the association between TA and PCCP. Content entailed topics regarding provision of care, employee training, facilitators and barriers to care, and decision-making strategies.

	<p>Results:</p> <p><u>Quantitative:</u> Of the 72 tenant participants, most were African American males with an average age of 51.8 years. The length of attendance for assisted housing averaged 6.9 years. Scores for the WAI averaged 61.11, in which possible scores can range from 12 to 108. Scores for the PCC Questionnaire averaged 117.08, in which possible scores can range from 32 to 160. From these quantitative findings, there was a strong direct correlation between TA and person-centeredness (i.e.- strong TA = greater person-centeredness).</p> <p><u>Qualitative:</u> Of the 57 total participants (38 tenants, 19 employees), the majority of subjects were African American with an equal gender distribution. The average age was 47.24 years with ages ranging from 23 to 69 years. As the qualitative component of the study was to examine associations between TA and PCCP via focus groups, there were two main findings. The findings highlight “(a) the importance of connection, continuity, and calibration of the relationship to set the right conditions for PCCP, and (b) PCCP as a vehicle for engagement”. The values of connection, continuity, and calibration of the relationship were established via informal communication with a person-first focus, consistency of employees without staff turnover, and individualized goals for care, respectively. The process of utilizing PCCP as a medium led to realizing that PCCP works reciprocally in that engagement yields PCCP just as much as PCCP yields engagement and TA.</p> <p>Conclusions: In the profession of behavioral health, TAs are critical for provider-patient collaborative relationships as well as PCCP. With focuses on connecting, continuity, and calibrating connections as well as the reciprocity of PCCP and engagement, TA can be successfully established.</p>
<p>Hussain et al. Short-Term Changes in Occupational Therapy Students’ Self-Efficacy for Therapeutic Use of Self. 2018.¹¹</p>	<p>Purpose: The purpose of this longitudinal observational study was to analyze “short-term changes in occupational therapy students’ self-efficacy for therapeutic mode use, for recognizing clients’ interpersonal characteristics, and for managing the interpersonal events of therapy”. Additionally, demographic variables (i.e.- age, gender, work status, prior higher education, and academic performance) were studied in relation to these changes.</p> <p>Subjects: Students were eligible to participate if they were (1) a second-year student in an enrolled occupational therapy program and (2) provided informed consent. There were no exclusion criteria. There were 89 students that participated in the study with most participants being female with an average age of 24.3 years.</p> <p>Outcome Measures & Measurement Time (if applicable): Baseline measures were 2-3 weeks post-workshops on the Intentional Relationship Model (IRM), while follow-up measures were 3 months post-baseline.</p> <p><u>Self-Efficacy for Therapeutic Use of Self Questionnaire</u> - This questionnaire measures self-efficacy related to therapeutic use of self, which consists of three main components: self-efficacy for therapeutic mode use, self-efficacy for recognizing interpersonal characteristics, and self-efficacy for managing interpersonal events. Self-</p>

	<p>efficacy for therapeutic mode use relates to students' abilities for advocating, problem-solving, instructing, encouraging, empathizing, and collaborating. Self-efficacy for recognizing interpersonal characteristics relates to students' preferences for communication style, capacity to trust, need to control, capacity to assert needs, respond to change or challenge, affect, predisposition to giving feedback, predisposition to receiving feedback, response to human diversity, orientation towards relation, preference for touch, and capacity for reciprocity. Self-efficacy for managing interpersonal events relates to students' challenges with expression of strong emotion, intimate self-disclosures, power dilemmas, non-verbal cues, crisis points, resistance and reluctance, boundary testing, empathetic breaks, emotionally charged tasks/situations, limits of therapy, and context inconsistencies. Items are scored across a ten-point Likert scale from 1 (lowest possible self-efficacy) to 10 (highest possible self-efficacy).</p> <p>Description of Intervention(s): The IRM workshops consisted of professor demonstrations, student role plays with therapeutic modes, and group discussion all centralized around the IRM model.</p> <p>Results: Across all areas, students enhanced their self-efficacy for the therapeutic use of self on all 3 components (i.e.- self-efficacy for therapeutic mode use, self-efficacy for recognizing interpersonal characteristics, self-efficacy for managing interpersonal events). For demographics, older age indicated higher improvements in self-efficacy.</p> <p>Conclusions: Occupational therapy students "improved their self-efficacy for therapeutic use of self in all three areas: self-efficacy for therapeutic modes use, for recognizing the clients' interpersonal characteristics, and for managing interpersonal events." These changes were especially observed with the demographic of older age.</p>
<p>Carstensen et al. Differences and Similarities in Therapeutic Mode Use Between Occupational Therapists and Occupational Therapy Students in Norway. 2017.¹²</p>	<p>Purpose & Study Design: The purpose of this cross-sectional study was to identify similarities and differences of occupational therapists' (OT) and OT students' preferences for therapeutic modes.</p> <p>Subjects: The study's participants consisted of 109 OTs and 96 OT students. The mean age for the OTs was 41 years, whereas the mean age for the OT students was 23 years. Across both groups, most subjects were female.</p> <p>Outcome Measures & Measurement Time (if applicable): The Norwegian Self-Assessment of Modes Questionnaire (N-SAMQ) is a 19-item, self-assessment tool designed to measure which therapeutic modes are preferred or not preferred by OTs and/or OT students.</p> <p>Results: The therapeutic modes preferred by the OTs included the collaborative and empathizing modes. The therapeutic modes preferred by the OT students involved the advocating and instructing modes. Across both the OT and OT student groups, the problem-solving mode had the highest mean score.</p>

	<p>Conclusions: The preferred therapeutic modes of the OTs emphasized increased awareness for patient-centered care as well as emotional supportiveness/attentiveness as compared to OT students. Although the OT students depicted lower levels of awareness, the authors suggested that the students' awareness will likely improve with time and experience. The preferred therapeutic modes of the OT students highlighted enhanced attention-to-detail with instructing, directing, and teaching. From these findings, the authors proposed that OTs and OT students can teach each other to optimize underdeveloped skills. At the same time, the authors emphasized that increased time and experience may be critical for maximizing progress in using therapeutic modes appropriately.</p> <p>Other Notes: In the profession of OT, the Intentional Relationship Model (IRM) facilitates therapeutic relationships and therapeutic use of self between practitioners and patients. The four main constructs of the IRM entail the patient, the therapist, the interpersonal interactions during interactions, and the occupation. While integrating the IRM, OTs utilize "modes of interaction" that best correspond to both the OT's and the patient's preferences.</p> <p>There are six, distinct "modes of interaction" including the advocating mode, collaborative mode, empathizing mode, encouraging mode, instructing mode, and problem-solving mode. The advocating mode allows the OT to serve as a liaison between the patient and other entities to ensure necessary patient resources and rights, such as accessibility to equal employment. The collaborative mode primarily focuses on maximizing "empowerment, autonomy, independence and personal choice" of the patient as well as motivating the patient to "take ownership of the therapy process". The empathizing mode seeks to gain understanding of the patient's experiences and/or feelings via active listening and direct observing. The encouraging mode requires the OT to exhibit behavioral approaches that "commends and applauds" the patient, such as through heartfelt compliments. The instructing mode facilitates the OT to depict teacher-like qualities for patient education on "issues considered important to occupational participation" via concise communication and easy-to-follow demonstrations and/or instructions. The problem-solving mode focuses on addressing challenges through "strategic questioning, structured guidelines or other logical approaches to enable the client to consider alternative perspectives and solutions".</p>
<p>Josephson et al. Evaluative Language in Physiotherapy Practice: How Does it Contribute to the Therapeutic Relationship? 2015.⁵</p>	<p>Purpose: This paper is a qualitative study that analyzes how PTs and their patients communicate with each other and provide feedback during evaluation and treatment sessions.</p> <p>Study Design: The authors analyzed PT-patient interviews, in which interviews focused on 3 subsystems: Affect, Judgement, and Appreciation. From there, it was determined if the evaluation was directed towards the patient as a person, the patient's chief complaint, or the patient's behavior or feelings.</p> <p>Subjects: There were 18 total interviews. Patients ranged in age from 21-80 years with conditions such as lower back pain, general musculoskeletal complaints, and acute cardiothoracic conditions. PTs had varied experience, ranging from final year PT students to PTs with 31 years of experience. Most PTs were male.</p>

Description of Intervention(s): PT-patient interactions were recorded during PT sessions.

Results: Results were reported by subsystem, and representational excerpts were included from interviews.

Affect/Emotions: Components of the affective subsystem included integrating the patient's feelings from a holistic perspective such as their well-being and health condition, discussing the patient's desires and fears regarding their treatment, the patient expressing sadness regarding their pain or change in status, and patient confidence/satisfaction in the assessment or treatment plan. The main avenue for PTs to engage in affective appraisal was by asking the patient a general question of "how are you feeling?" at the beginning of the session. In the hospital setting, "how are you feeling?" was used to evaluate a patient's security with an activity such as walking. This can be confusing for patients to interpret who may respond with an emotional appraisal such as "I'm nervous," compared to an appreciative appraisal focused on quality. There is a tendency for PTs to repeat the emotional state back to the patient, but otherwise do not attend to the emotional component to the statement. An example is if a patient states tearfully, "my goal is to run again," the PT is more likely to focus on the goal of running as opposed to the emotional distress of not being able to run. Finally, PTs generally do not engage with information provided by patients who express confidence in the advice of their friends or neighbors.

Judgement/Behaviors: Aspects of the judgement subsystem included evaluating a patient's performance capacity or the "normality" of a health behavior, commenting on a patient's tenacity with treatment, verifying information, and assessing if the patient is doing the "right" behavior either ethically or by following instructions. PTs regularly ask questions regarding patient behaviors as part of a subjective assessment. If the patient does not provide enough information, the PT will ask probing questions. Alignment between the PT's and patient's self-appraisal was important because disagreement was reflected in mis-aligned goals where the PT's goals took precedence over the patient's. If the PT provides a social-sanction appraisal with the patient (you're kidding!), this does not necessarily contribute to decision making but fosters a positive rapport. Conversely, a patient may avoid aligning themselves with a PT's performance appraisal they do not agree with by diffusing with humor or using a qualifier.

Appreciation of Objects/Events: Examples of appreciation include objectifying the patient's reaction or identification of pain as "it," the PT responding to a patient's performance on a physical test, and when the PT identified the source of the chief complaint during the exam. Appreciation was used to evaluate the patient's reaction, quality of pain or movement, assess outcomes, and the value of treatment. Clinical assessment examples include using pain scales and the patient stating, "it's not too bad, that's sore, that's tender, it's the same pain I'm here for."

Conclusions: PTs do not follow up on patients' contributions if they do not align with what the PT values clinically.

	<p>PT's may be uncomfortable with acknowledging patient feelings or that the patient's contributions are threatening to their professional expertise. By not attending to a patient's emotions, the conversation becomes PT-centered. Patients may use humor to draw attention to their self-assessments or to counteract the clinical discourse.</p> <p>Other Notes: Includes the 2014 Sidani and Fox ⁴ definition of therapeutic relationship in the background. "Trust and nurturing is foundational, respect is mutual, and information that will guide the planning, implementation and evaluation of care is exchanged by both parties. Mutual respect is interpreted as meaning that patients respect the professional's expertise, and that health care professions are open to and respectful of patients' knowledge and experiences."</p>
<p>Hall et al. The Influence of the Therapist-Patient Relationship on Treatment Outcome in Physical Rehabilitation: A Systematic Review. 2010.¹³</p>	<p>Purpose and Study Design: The purpose of this systematic review was to assess if TA is related to outcomes in physical rehabilitation settings. The authors reviewed articles across rehabilitation disciplines including PT, Occupational Therapy, Speech Therapy, Recreational Therapy, and Chiropractic. Fourteen papers met inclusion criteria of studies being (1) prospective, longitudinal Randomized Control Trials (RCT)s, controlled trials, or cohort studies, (2) patients were undergoing physical rehabilitation, (3) used ≥ 1 measure of TA, (4) used ≥ 1 treatment outcome measure. Six databases were searched resulting in 1,600 unique titles published between 1990-2009. Of those, 14 papers were selected, and 2 separate papers utilized the same data set.</p> <p>Subjects: There were 3,196 subjects across 13 data sets from 14 individual papers with diagnoses involving brain injury, musculoskeletal conditions, cardiac conditions, and multiple pathologies. One paper focuses on geriatrics.</p> <p>Outcome Measures & Measurement Time (if applicable): Functional outcome measures included adherence to PT, completion of activities of daily living, pain, function, disability, depression, productivity, therapeutic success, global assessment, and employment status. TA was measured using a variety of questionnaires including the Working Alliance Inventory Short and Long Forms, California Psychotherapy Alliance Scale, Prigatano Scale, 5-item Questionnaires, and the MedRisk Instrument for Measuring Patient Satisfaction With PT Care.</p> <p>Description of Intervention(s): Treatment interventions were predominantly provided by PTs, although 4 studies included multidisciplinary treatments. Example interventions included PT and occupational therapy for chronic pain disorders, "traditional bone setting," cardiac rehabilitation, and multidisciplinary centers. Treatment times varied from 4-16 weeks and were only reported in 7 of the 13 datasets.</p> <p>Results: Results for the ability of the alliance scores to predict outcome were subdivided by injury type. There was insufficient homogeneity between measurements of alliance and outcomes to support pooling of data.</p> <p>Brain Injury: Three of the 13 datasets included post-acute brain injury rehabilitation programs with multidisciplinary</p>

	<p>teams helping patients achieve goals of improved cognitive, physical, and social function. Two papers had significant positive associations between the alliance and adherence, physical function, employment, depression, and success with therapy. One study found a positive association between program attendance and the alliance, but not other outcomes.</p> <p><u>Musculoskeletal Conditions:</u> Six of the 13 datasets included patients with a variety of musculoskeletal conditions such as chronic neck and back pain. Significant positive associations were found between the alliance and patient's perceived treatment effect, pain, function, satisfaction, depression, and health status.</p> <p><u>Other Conditions:</u> Two of the 4 remaining datasets found a positive correlation between the alliance and physical function and depression in geriatric patients. Changes to the alliance had a positive correlation to program adherence for patients in cardiac rehab programs.</p> <p>Conclusions: There is an association between a positive TA and certain outcome measures for musculoskeletal, geriatric, brain injury, and cardiac rehabilitation patients.</p>
--	---

Inpatient-Specific Therapeutic Alliance	
<p>Zhang et al. Elderspeak to Resident Dementia Patients Increases Resistiveness to Care in Health Care Profession. 2020.¹⁴</p>	<p>Purpose: The purpose of this narrative review was to evaluate the impact of elderspeak from healthcare practitioners in relation to resistiveness to care in individuals with dementia residing in long-term care facilities.</p> <p>Narrative Review: Resistiveness to care is not uncommon for individuals with cognitive impairment. The resistiveness often stems from deterioration of patients' communication skills secondary to disease advancement. Although providers attempt to positively bridge communication gaps, these efforts are often misconstrued by patients which consequently affect the therapeutic relationship. Often, providers will communicate with older adults with dementia through the medium of elderspeak, which entails oversimplified conversational content paired with infantilizing tones, elevated volumes, and terms of endearment (i.e. - sweetie). Despite the provider's attempt to ease patient discomfort during advanced or dependent caregiving and/or treatment, this approach can lead to increased resistiveness to care, reduced self-esteem, verbal or physical aggression, emotionally charged outbursts, depression, and communication breakdowns. The presence of elderspeak is most common amongst younger healthcare practitioners towards older adults requiring higher levels of care.</p> <p>As there is an overwhelming presence of elderspeak between younger providers and older adults, Zhang et al. highlights the value of minimizing and eventually eradicating elderspeak while caring for individuals with dementia</p>

	<p>residing in long-term care facilities. Through providers engaging in communication workshops to optimize communication as well as reduce or eradicate elderspeak, there were significant reductions in resistiveness to care. Strategies for optimizing communication involve straightforward sentences with clear intent, capitalization on semantic versus episodic memory, minimization of environmental distractors during communication, utilization of close-ended questions, and prioritization of patients' needs/desires. Following the optimization of these variables, patient care was more cost-effective and time-effective secondary to less time being devoted to addressing behavioral complications from resistiveness to care.</p>
<p>Portacolone et al. Expectations and Concerns of Older Adults with Cognitive Impairment about Their Relationship with Medical Providers: A Call for Therapeutic Alliances. 2020.¹⁵</p> <p>This study was primarily conducted with older adult subjects.</p>	<p>Purpose & Study Design: The purpose of this qualitative case series was to “understand the expectations and concerns of older adults with cognitive impairment with regard to their relationship with medical providers” in the context of the TA. The study specifically sought to determine if older adults with cognitive impairment had an existing TA relationship with their providers.</p> <p>Subjects: The participants included 27 older adults with cognitive involvement. Eligibility criteria for participation involved age ≥ 55 years, formal diagnosis of mild cognitive impairment (MCI) or Alzheimer’s disease (AD), ability to provide informed consent, and social status of living alone. Participants exhibited an age range of 62-94 years with the average age being 79.1 years. Of the 27 participants, 11 were diagnosed with AD while 16 were diagnosed with MCI. The majority of subjects were women. Regarding culture and ethnicity, most participants were non-Latino white. Most participants demonstrated an educational background of a bachelor’s degree or higher.</p> <p>Description of Intervention(s): The participants were associated with having an established TA with their providers based on whether or not they depicted “two broad criteria: (a) they mentioned having a positive relationship with a medical provider, and (b) they mentioned seeing the medical provider regularly.”</p> <p>Results: Overall, 19 subjects did not meet the criteria for a TA while 6 subjects did meet the criteria. Of the patients that did exhibit a TA, the traits/characteristics that were present involved personable/empathetic healthcare providers, providers fostering approaches of letting the patient ‘take the lead’ on decision-making for the plan of care, custom plans of care, strong communication skills and ‘non-rushed’ conversation from the providers, exemplary inter-professional communication regarding the patient, clarity of diagnosis of cognitive impairment and projected trajectory/prognosis from providers, and direct practitioner-patient communication versus providers deferring to caregiver(s). From the patients that did not depict a TA, these traits/characteristics were all absent.</p> <p>Conclusions: The presence of a TA for older adults with cognitive impairment is essential for patient-centered care for various reasons. As cognitive impairment diagnoses are life-altering and can evoke large amounts of psychosocial and emotional stress, presence of practitioner advocacy and support helps attenuate this challenge.</p>

	<p>Older adults with progressive cognitive impairment also lose the ability to maintain organization with activities of daily living; therefore, practitioners often serve as support systems for helping the patient manage these challenges. As older adults, especially those with cognitive impairment, are more trusting of and reliant on others, reciprocal trust from providers may help enhance patient compliance towards the plan of care.</p> <p>Other Notes: The article has a good definition of TA on the second page of the paper that would be advantageous for the PowerPoint. In the results section, there was a patient case subsequently ending in suicide from lack of a TA with other patients having suicidal ideations. This may serve as a poignant example of how critical TAs are, and what can occur when older adults are not feeling acknowledged.</p>
<p>Raber et al. Applying the Intentional Relationship Model to Persons with Dementia: A Retrospective Analysis. 2019.¹⁶</p> <p>This study was primarily conducted with older adult subjects.</p>	<p>Purpose: The purpose of this study was to explore how the mechanisms and components of the IRM can be used to help older adults with dementia living in skilled nursing or long-term care facilities engage with occupations and socialization.</p> <p>Study Design: This paper is a retrospective thematic analysis of data on the “volition” of residents to engage in occupations and socialize in an assisted living facility (ALF). The data was obtained from a prior interview study by the same author and re-analyzed. The current analysis was deductive and applied the IRM model. Results from the initial data set were mapped by two authors to identify IRM concepts of mode use, interpersonal characteristics and events, occurrences of volition, mechanisms of the OTs’ mode use and how this impacted the participants’ expression. High inter-rater agreement was obtained, and a codebook was developed and revised.</p> <p>Subjects: Eight older adults living in an ALF with moderate dementia were included in the original study, and 3 of those subjects were included in this thematic analysis. The subjects were purposely selected due to their variation in interpersonal characteristics based on field notes and data from the original study. Two of the subjects were female, one was male, and they were ages 94, 90, and 85 years, respectively.</p> <p>Results: Detailed personal descriptions of the 3 subjects’ occupations, enduring personality characteristics, and social supports were provided. The authors provided results for the 3 questions: (a) “Which IRM mode most frequently facilitated verbal or behavioral expressions of volition (exploration, competency, achievement)?” (b) “What interpersonal characteristics of the participants were expressed? Were any participants’ interpersonal characteristics associated with their expression or absence of, volition?” (c) “How did the OT respond to the interpersonal events? In what ways did these responses facilitate a therapeutic relationship and engagement in occupation?”</p> <p><u>Question (a):</u> Across participants, the collaborating and encouraging modes were most commonly used, and the mode use was matched to the participant’s interpersonal characteristics. Encouraging mode was used to reinforce</p>

	<p>participant preferences for engaging in occupations and tasks, providing emotional security and creating a successful experience, or using humor to establish connection on known interests to promote self-confidence. Collaborating mode was used predominately with one patient who needed reinforcement of her autonomy and choices. In addition, collaborating mode was used in over half of the interactions to obtain feedback or to engage in shared decision making. Collaborating mode also consistently produced volitional behavior.</p> <p><u>Question (b):</u> All participants demonstrated enduring interpersonal characteristics that contributed to their volitional expression. Enduring characteristics are those that relate to personality as opposed to responding to a situation in context. Examples of these enduring characteristics included using humor in conversation, the desire to feel emotionally connected to others, being viewed as helpful, and a need for control and capacity for trust in others.</p> <p><u>Question (c):</u> A variety of events that challenged the TR were observed including non-verbal cues, reluctance, resistance, expressions of strong emotions, power struggles, and testing boundaries. OTs used subtle shifts in mode to maintain the subject's emotional security during the interaction in an attempt to re-engage the subject in the selected occupation.</p> <p>Conclusions: Results of this paper support the IRM constructs and produced additional question about applying the model to this population. Collaborating, encouraging, and empathizing were the mostly commonly used modes. Volitional expression was supported by mode use.</p> <p>Other Notes: This paper provides an excellent overview on the IRM, its modes and definitions, and when to apply each mode. We should use this paper as a model for tailoring encounters with patients based on their needs. It provides an overview of the OT Model of Human Occupation, which appears to be OT's evaluation framework.</p>
<p>Hatton et al. A Single Clinical Experience in a Nursing Home Improves Physiotherapy Students' Attitudes Towards, and Confidence to Communicate with Older</p>	<p>Purpose & Study Design: The purpose of this qualitative case series was to examine PT students, pre- and post-experience, on how partaking in a clinical experience at a nursing home impacts their attitudes/perceptions towards older adults.</p> <p>Subjects: The subjects included 134 PT students (102 Bachelor, 32 Master) that met inclusion criteria of being at least eighteen years of age, speaking fluent English, exhibiting all prerequisite clinical requirements, and providing consent. There were also older adult interviewees and clinical instructors; however, the attitudes/perceptions of these individuals were not studied. As the students reported $\leq 25\%$ of time spent with older adults per week, all students engaged in preparatory activities one week prior to the experience including lectures (i.e.- biological ageing) and communication workshops (i.e.- dialect/tone, personability).</p> <p>Outcome Measures & Measurement Time (if applicable):</p>

People. 2018.¹⁷

University of California: Los Angeles (UCLA) Geriatric Attitudes Scale (GAS) - This 14-item survey was given 1 week pre- and 1-week post- experience to measure students' attitudes on working with older adults. Each of the 14 items correlate to a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree).

Perceived Confidence in Communication Scale - This 11-item survey was provided 1-week pre- and 1-week post-experience. The first 10 items, gauging communication confidence, correlates to a 5-point Likert scale from 0 (not at all confident) to 4 (totally confident). The 11th item examines anxiety towards future interactions with older adults on an 11-point Likert scale from 0 (not at all anxious) to 10 (extremely anxious).

Satisfaction Survey - This 12-item survey was provided post-experience to gauge opinions on effectiveness of the learning environment, consideration of learning styles, desire for participation, and interest in geriatrics. The items correlated to a 5-point Likert scale from 1 (strongly dissatisfied) to 5 (strongly satisfied). At the end of the survey, there was a yes/no question asking if students had made the most of the experience.

Description of Intervention(s): The intervention involved students participating in one, 2-hour visit to a nursing home at the 2-week mark of a 13-week gerontology course. Upon arrival, two to four students were paired with one older adult; however, each group also had one PT clinical instructor. The older adults were all ≥ 65 years with varied clinical presentations and medical diagnoses. All older adults lacked cognitive impairment, which allowed them to provide interview consent as well as fully comprehend/respond to the questions. From there, students collected information via an interview on the older adult's medical history, surgical history, social history, functional status, and presenting co-morbidities and conditions.

Results:

UCLA GAS - Other than Master students having less disinterest than Bachelor students for working with older adults in the future, students held similar attitudes/perceptions pre-experience. After the experience, there were between-group and within-group differences. Regarding older adults' societal role(s), Master students held better attitudes on this topic versus Bachelor students. In relation to valuing older adults' experiences, Bachelor students valued this more than Master students. From pre- to post- experience, Bachelor students depicted a positive shift towards spending time with older adults, engaging with older adults professionally, and advocating for the allotment of resources for the geriatric population.

Perceived Confidence in Communication Scale - Prior to the experience, Bachelor students exhibited less confidence on the majority of the communication items versus Master students. Of the communication items that were equally rated pre-experience, these items related to emotional interactions. The between-group differences post-experience propose Bachelor students are less confident with more complex aspects of communication than

	<p>Master students. The within-group differences post-experience suggest both groups enhanced their confidence for interacting with older adults. Apart from the communication items, the item on anxiety noted both groups had low levels of anxiety at baseline; however, Bachelor students were able to further reduce their anxiety for working with older adults post-experience.</p> <p><u>Satisfaction Survey</u> - The Bachelor and Master students reported scores of 4.2 and 4.0, respectively. The scores note the students' positive perceptions towards the experience, ranging from acknowledgement of learning styles to effective learning environments. The majority of the bachelor (81%) and master (91%) students noted they made the most of the clinical experience.</p> <p>Conclusions: Hatton et al. found a singular clinical experience at a nursing home is advantageous for PT students at the beginning of their education, as it positively influences students' attitudes/perspectives on older adults. Improvements were depicted immediately and sustained at 1-week post-experience. Along with the experience, students benefited from structured, pre-experience learning activities.</p> <p>Other Notes: This article has great factual information on future trends in gerontology and students' and clinicians' perceptions of working with older adults in the background section that would be advantageous for referencing in the PowerPoint Presentation.</p>
<p>Barba et al. The Role of Therapeutic Use of Self in the Application of Nonpharmacological Interventions. 2014.¹⁸</p>	<p>Purpose: The purpose of this narrative review was to analyze the role of therapeutic use of self during administration of non-pharmacological interventions for older adults in long-term care facilities. The concept of therapeutic use of self entails the conscious use of one's "personality, insights, perceptions, and judgements as part of the therapeutic process."¹⁹ The aspects needed to exemplify therapeutic use of self involve developing rapport, forming a trusting relationship, exuding empathy, optimizing energy, and establishing an effective caregiver dynamic.</p> <p>Narrative Review: By developing rapport, providers and patients capitalize on similarities and/or connections to yield a strong provider-patient relationship across the plan of care. Rapport-building strategies entail a friendly disposition, meaningful introductions, positive non-verbal expressions (i.e.- friendly handshake, consistent eye contact), reduction of distractors (i.e.- laptop), selfless attitude, active listening with strong perceptual skills for patient responses/reactions, avoidance of complex medical jargon, consideration of culture and ethnicity, mirroring, and commonality. Mirroring involves becoming in-sync with the mannerisms and outlooks of the older adult, such as exuding excitement when the older adult is happy. Commonality entails purposefully searching for things the practitioner and patient have in common to "build a sense of camaraderie and trust."</p>

	<p>The formation of a trusting practitioner-patient relationship is indispensable, especially since older adults naturally depend on others. Some critical factors of trusting relationships entail genuineness or transparency, insight or perception, patience, honesty, genuine listening and communication, interpersonal skills, respect of viewpoints, advocacy for the older adult, dependability, reliability, trustworthiness, interest in the older adult (i.e. - life, family, career), and complimentary sentiments to boost the older adult's self-esteem. The concept of provider empathy closely relates to the formation of a trusting relationship. Through acknowledging and validating the older adult's emotions and experiences, the older adult is more inclined to be trustworthy of and work with the provider. Approaches for exhibiting empathetic behaviors include positive non-verbal gestures, active listening, undivided attention, and repetition/reflection of conversation for clarification.</p> <p>As providers are typically hardworking individuals with a tendency to overwork and overcommit, degradations in physical, mental, and emotional energy are not uncommon. Older adults can easily be affected by outward displays of burnout, fatigue-related frustration, and/or lack of energy. From this information, providers should avoid negative behaviors (i.e.- slouching, dragging feet, sighing and/or groaning, complaining) and depict positive behaviors (i.e.- smile, refined posture, re-frame outlook) to optimize available energy. Apart from optimizing energy, establishing an effective caregiver dynamic is crucial. Aspects of good caregiver dynamic entail steadfast commitment regardless of interpersonal connection, enduring responsibility in challenging moments, consistently prioritizing the patient, and demonstrating a supportive presence when all else fails.</p>
--	--

Outpatient-Specific Therapeutic Alliance	
<p>Moore et al. Therapeutic Alliance Facilitates Adherence to Physiotherapy-Led Exercise and Physical Activity for Older Adults with Knee Pain: A Longitudinal Qualitative Study. 2020.²⁰</p>	<p>Purpose: The study's purpose was to understand participant experience and perceived impact of enhanced PT-led exercise interventions for osteoarthritis-related knee pain. The authors also analyzed participants' perceptions of barriers and facilitators to changing exercise behaviors in the context of PT interventions.</p> <p>Study Design: This qualitative study was performed as part of the Benefits of Effective Exercise for Knee Pain (BEEP) clinical trial. The BEEP trial was a multi-center, parallel group, RCT. Subjects were randomly allocated to one of three groups: individually tailored exercise (ITE), targeted exercise adherence (TEA), or usual care (UC). Qualitative data was obtained via semi-structured, in-person interviews with a subsample from each intervention group immediately post-intervention and at 12-months post-intervention. Open-ended questions asked about treatment sessions, beliefs about exercise and knee pain, long-term adherence and symptom impact, and importance of treatment for knee pain. Data analysis was initiated by one investigator identifying 3 major themes, in which themes were validated and refined by additional investigators. Sampling continued until no themes emerged and saturation was achieved.</p>

Subjects: Thirty BEEP trial participants completed the post-intervention interview and follow-up. Subgroup samples represented a spread across trial arms, age, gender, adherence, and activity levels. Participants included adults ≥ 45 years old with diagnosed knee osteoarthritis. Most subjects (17 of 30) were ≥ 65 years.

Outcome Measures & Measurement Time (if applicable): The Western Ontario and McMaster Universities Arthritis Index (WOMAC) measured change in scores from baseline to 3-months follow-up. The mean Physical Activity Scale for the Elderly (PASE) was scored at baseline and 18-months follow-up. Also, subjects were asked their level of agreement with the statement “I have been doing my exercises as often as advised” at 3-, 6-, and 18-months post intervention.

Description of Intervention(s): The ITE group received 6-8 individualized, supervised, and progressive lower extremity strengthening exercises over 12 weeks. The TEA group transitioned from lower extremity exercise to general exercise with 8-10 follow ups over 6 months. The control (UC) received usual care.

Results: Analyzed topics included participants’ perceptions of interventions, long-term barriers and facilitators to exercise and physical activity, and participant’s suggested improvements for PT interventions.

Long-Term Barriers to Exercise and Physical Activity	
Group	Trial Interventions & General Physical Activity
UC	<p>Trial Interventions: At post-intervention, subjects noted that ongoing pain, having a negative attitude towards exercise, lack of supervision, and time or location constraints were barriers to completing PT exercises. At 12-month follow-up, barriers to completing PT exercises included continuing pain, resolution of pain, and replacing PT interventions with other activities.</p> <p>General Physical Activity: N/A for the UC group.</p>
ITE	<p>Trial Interventions: At post-intervention, subjects noted that lack of interest, poor self-efficacy, time/location constraints, exercise burden, and replacement with other activities were barriers to exercise. At 12-months follow-up, subjects noted that worsening pain, fear of falling, poor self-efficacy, lack of supervision, poor weather, time/location constraints, and conflicting advice from health care providers were barriers.</p>

	<p>General Physical Activity: At post-intervention, subjects noted lack of motivation/interest, time constraints, and weather as barriers. At 12-months follow-up, ongoing pain was the sole barrier.</p>
TEA	<p>Trial Interventions: At post-intervention, subjects noted ongoing pain, negative beliefs about pain and exercise, lack of motivation and/or education, poor PT communication, and time or location constraints were barriers. At 12 months follow-up, lack of motivation secondary to symptom resolution was the main barrier to continuing PT exercises.</p> <p>General Physical Activity: At post-intervention, subjects noted disinterest, poor self-efficacy, weather, and already being a regular exerciser were barriers to physical activity. At 12 month follow-up, lack of motivation and support, time/location constraints, resolution or ongoing pain, and cost of gym memberships were primary barriers to general physical activity.</p>
<p>Facilitators to Exercise and Physical Therapy</p>	
Group	<p>Trial Interventions & General Physical Activity</p>
UC	<p>Trial Interventions: At post-intervention, exercise enjoyment, increased self-efficacy, feeling benefit, ability to integrate exercises into daily life, positive therapist affect, and instilling confidence were facilitators to exercise. At follow-up, resolution of pain, positive attitude towards exercise and pain, wanting to avoid future surgeries, and education were facilitators to exercise.</p> <p>General Physical Activity: At 12-month follow-up, education was a facilitator to general activity.</p>
ITE	<p>Trial Interventions: Post-intervention, increased self-efficacy, experiencing the benefit, education, positive therapist affect, therapist supervision, and avoiding surgery were facilitators to doing exercises. At 12-month follow-up, the ability to integrate exercises into daily routine facilitated continuation of exercises.</p> <p>General Physical Activity: Post intervention, identifying as an “exerciser,” self-efficacy, the ability to fit exercise into daily life, and a therapist who is “inspiring and realistic” were facilitators to general activity. At follow up, education and identifying as an “exerciser” were facilitators to continued activity.</p>

TEA	<p>Trial Interventions: Post intervention, increased self-efficacy, ability to fit exercises into daily routine, avoiding surgery, close supervision, and positive therapist affect were facilitators to performing trial interventions. At follow-up, patient self-efficacy, identifying as an “exerciser,” feeling the benefit, family support, and education were facilitators to continued exercise.</p> <p>General Physical Activity: Post intervention, feeling the benefit, identifying as an “exerciser,” ability to fit activity into daily routine, therapist encouragement, avoiding surgery, and education were facilitators to physical activity. At follow up, identifying as “active,” having support from others, and education were facilitators to continued physical activity.</p>
-----	---

Perceptions on adherence: Most participants were partially to fully adherent at end of treatment, and most transitioned to independent physical activity at follow-up. Most participants did not continue with intervention exercises at follow-up or did so inconsistently.

Suggested improvements: All groups suggested increasing the number of regular reviews to modify exercises and provide important reminders, increasing the number of treatment sessions, spreading the treatment sessions across a longer time period, and using a variety of modes of service delivery. The UC and ITE groups suggested that reviews should be provided by the PT specifically as opposed to a primary care provider since they would provide the “right kind of advice” and “be easier to talk to”.

Characteristics of the Therapeutic Alliance: Mutual investment, positive personal interactions, and communication were identified as the 3 major characteristics of the TA. Examples of mutual investment include PT appreciation of patient efforts, joint motivations and negotiation on treatment goals, and demonstrating equity in the work of the rehab plan. Positive interactions with the PT included feeling at ease, relaxed and valued, perceiving the therapist as “good” or “nice”, PT making an effort to get to know the patient personally and making connections beyond the session, and being attentive. Openness and honesty, active listening, ensuring the patient understands the exercise and rationale, and instilling confidence or providing reassurance were key components of alliance-building communication.

Conclusions: This paper identifies specific components of physical therapy interventions that contribute to barriers and facilitators of long-term exercise adherence and which components of communication improve the TA. The identified barriers and facilitators to exercise adherence were often the positive or negative of a specific behavior. For example, time and location constraints were a common barrier across groups and being able to incorporate exercise into the person’s daily routine was a common facilitator. Components of self-efficacy, such

	<p>as uncertainty around exercise safety and symptom management, were common barriers, and having increased knowledge or identifying as an “exerciser” were facilitators. Thus, PTs must focus on communication and educational interventions that incorporate health behavior change strategies (i.e.- increasing self-efficacy, motivational interviewing). The example behaviors of increasing TA are critical in terms of making recommendations to PTs in how to improve their PT-patient relationship.</p>
<p>Lotzke et al. A Person-Centered Pre-habilitation Program Based on Cognitive-Behavioral Physical Therapy for Patients Scheduled for Lumbar Fusion Surgery: A Randomized Controlled Trial. 2019.²¹</p>	<p>Purpose and Study Design: The purpose of this RCT was to determine if a person-centered PT pre-habilitation program based on cognitive behavioral therapy (CBT) principles was more effective than usual care in improving postoperative outcomes after lumbar fusion surgery in individuals with degenerative disc disease. An independent observer randomly assigned participants to the intervention or usual care group in a 1:1 computerized allocation that was concealed from the rest of the staff. Observers who conducted the outcome measures were blinded to the intervention group.</p> <p>Subjects: This study included 118 patients who were scheduled for lumbar fusion surgery at 2 private spine centers and a university hospital in Sweden. Inclusion criteria were being 18-70 years of age, having chronic low back pain with degenerative changes in 1-3 spinal segments, presence of minor radiating symptoms, having reproducible pain during clinical exam, and being scheduled for lumbar fusion. Participants were excluded if they had previous spinal decompressive surgery, malignancy, dominating radiculopathy, neurologic or rheumatic disorders, or deformities in the thoracic spine. Mean subject age was 45.7 years and >50% were women.</p> <p>Outcome Measures & Measurement Time (if applicable): Disability status was the primary outcome and measured by the Oswestry Disability Index (ODI). Secondary patient reported outcome measures included visual analog scales of pain intensity, pain catastrophizing scale, Tampa Scale for Kinesiophobia, Self-Efficacy for Exercise Scale, Hospital Anxiety and Depression Scale, European Quality of Life 5 Dimensions Questionnaire (EQ5D), Patient-Specific Functional Scale (PSFS). Secondary physical performance measures included daily physical activity (steps per day, time doing physical activity, time spent sedentary) measured by a digital triaxial accelerometer, and physical capacity measure by 5-minute walking distance, 50-foot fast walking, Timed “Up & Go” test (TUG), 1-minute stair-climbing and Single Leg Stand test. Outcome measurements were obtained at baseline, 1 week prior to surgery, and 3 weeks, 8 weeks, 3 months, and 6 months post-operatively.</p> <p>Description of Intervention(s): The active pre-habilitation program started 8-12 weeks before scheduled surgery. Participants met with the same PT for 4, 1-hour sessions before surgery, and 1, 30-minute session by phone 2 weeks post-op. The sessions were led by a PT with more than 10 years’ clinical experience treating patients with low back pain and graduate training in CBT. These sessions had a prescribed protocol in order to maintain fidelity. Aims of the sessions started with analyzing the patient’s ability to stay active despite pain, increasing knowledge about pain and activity, challenging the patients’ feelings regarding performing physical</p>

	<p>activity despite pain, enhancing self-efficacy through goal setting, and to assess for continued fear-avoidance beliefs. The usual care group received a single session with a PT for education about postoperative mobilization and strength training, and to provide encouragement to stay active before surgery.</p> <p>Results: Of the 118 participants allocated, only 108 ultimately had the lumbar fusion surgery, but all participants were included in the intent-to-treat analysis. Participants who did not follow-up at 8 weeks had significantly higher levels of kinesiophobia and depression. Participants without follow-up data at 3 and 6 months had significantly worse balance standing on 1 leg.</p> <p><u>Primary Outcome:</u> No significant differences were observed for the ODI between groups. However, the change in ODI score was significant from baseline to 6 months for each group individually. At 8 weeks post-op, the ODI score decreased by 8 points in each group, reaching the maximal information coefficient (MIC) value.</p> <p><u>Secondary Outcomes, Patient Reported:</u> Statistically significant outcomes were reported for the EQ5D between groups, favoring the intervention group at 1 week prior to surgery, but this did not reach MIC. The change from baseline to 6 months was statistically significant for all outcomes in each group separately and reached a stable plateau at 8 weeks post-op, and achieved MIC value for pain intensity, pain catastrophization, anxiety, and health related quality of life. MIC for the PSFS was attained at 3 months. There was a small effect size in favor of the intervention group for the PSFS at each time-point.</p> <p><u>Secondary Outcomes, Physical Performance:</u> There were no statistically significant differences for the physical performance measures: steps per day, time spent in physical activity, time spent sedentary, 50-foot walk and single limb stance test. At 6 months, the largest effect sizes favoring the intervention group were for time spent in moderate-to-vigorous physical activity and single limb stance test.</p> <p>Conclusions: Both the CBT-based intervention and the usual care contributed to clinically meaningful changes post lumbar-fusion surgery for chronic low back pain. Future studies should include patients with a psychological risk profile to ascertain if they would benefit from enhanced preoperative counseling to improve outcomes.</p>
<p>Lakke et al. The Added Value of Therapist Communication on the Effect of Physical Therapy Treatment in Older</p>	<p>Purpose & Study Design: The purpose of this study was to determine if added PT-initiated communication during intervention administration improves physical activity outcomes in older adult patients. This study is a systematic review and meta-analysis of RCTs and clinical controlled trials. Twelve papers met the study's inclusion and exclusion criteria.</p> <p>Subjects: There were 1,581 participants in the 12 included studies. All subjects were ≥ 60 years, and > 65 in 75% of the studies. More than 50% of subjects were female, and diagnoses across studies consisted of chronic</p>

<p>Adults: A Systematic Review and Meta-Analysis. 2019.²²</p> <p>This study was primarily conducted with older adult subjects.</p>	<p>low back pain, hip fracture, reduced activity of daily living performance, decreased functional mobility, chronic obstructive pulmonary disease, osteoarthritis, cardiovascular diseases, diabetes, and stroke. All studies took place in some type of outpatient setting (i.e.- PT clinics, senior centers, multidisciplinary clinics, fitness centers). Two studies had an inpatient component in addition to outpatient if the interventions were administered post-operatively. Most studies included an independent home exercise program.</p> <p>Outcome Measures & Measurement Time (if applicable): This paper analyzed the articles via results of self-reported and performance-based measures. Self-reported measures included exercise logs, Short Form-36 Health Survey, pain and disability scales, Functional Independence Measure score, Activity and Balance Confidence Scale, Decision Balance Questionnaire, and the Canadian Occupational Performance Measure. Performance-based measures included range of motion, maximum and self-selected gait speed, leg extension strength, Six-Minute Walk Test distance, functional reach, TUG, Berg Balance Scale, tandem stance time, balance test grade, box-stepping test, and timed walking tests. Differences in outcome measures were assessed by forest plots to determine pooled treatment effects by category of communication intervention.</p> <p>Description of Intervention(s): The experimental groups had added communication interventions beyond the control groups' usual exercises, sham ultrasound, group exercise, and provider information/feedback. Communication interventions were categorized into social support, added feedback to foster generalizability of the target behavior, and goal planning. Six of the 12 papers used specific "social support" interventions such as individual counseling using the transtheoretical model of behavior change, added encouragement and follow-up, individualized PT attention/feedback, educational sessions, CBT, and psychologist-directed pain management. Three studies used "generalization of target behavior" interventions such as multidisciplinary home visits, practicing target behaviors outdoors, positive reinforcement and self-efficacy building, individually tailored and graded tasks, and home practice encouragement. The "goals and planning" domain used interventions such as using a participation contract, accountability phone calls, discussion of exercise barriers and facilitators, motivational interviewing, and meaningful group discussion on activities. The frequency and duration of experimental groups matched those of the controls.</p> <p>Results: Added PT communication in "generalizing target behavior" improves self-reported measures up to 12 months post-treatment.</p> <table border="1" data-bbox="472 1250 1869 1396"> <thead> <tr> <th colspan="2">Results by Outcome Measure Type and Time</th> </tr> <tr> <th>Outcome Measure</th> <th>Standard Mean Difference (SMD), 95% Confidence Interval (95% CI),</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Results by Outcome Measure Type and Time		Outcome Measure	Standard Mean Difference (SMD), 95% Confidence Interval (95% CI),		
Results by Outcome Measure Type and Time							
Outcome Measure	Standard Mean Difference (SMD), 95% Confidence Interval (95% CI),						

	Heterogeneity (I^2) Interpretation
Performance-based short term (end of treatment)	SMD: 0.05 95% CI: -0.10, 0.20 I^2: 0% Interpretation: High-quality evidence suggesting no effect
Self-reported short term	SMD: 0.19 95% CI: 0.07, 0.31 I^2: 0% Interpretation: Moderate-quality evidence of very small effect *quality downgraded due to risk of bias in included studies, PEDro <6
Performance-based intermediate term (3-12 months)	SMD: -0.00 95% CI: -0.22, 0.21 I^2: N/A Interpretation: Moderate-quality evidence of no effect *quality downgraded due to imprecision based on 3 studies
Self-reported intermediate term	SMD: 0.24 95% CI: 0.045, 0.44 I^2: 22% Interpretation: High-quality evidence for added communication and no inconsistency of the results.
Results by Intervention Type	
Intervention	Standard Mean Difference (SMD), 95% Confidence Interval (95% CI), Heterogeneity (I^2) Interpretation
Social Support	SMD: -0.02 95% CI: -0.24, 0.20 I^2: 52% Interpretation: Performance-based was moderate-quality evidence of no effect. Self-report was low-quality evidence of no effect. Both were downgraded for inconsistency and imprecision.
Generalization of Target Behavior	Performance-Based: SMD: 0.24 95% CI: -0.05, 0.53 I^2: N/A Self-Report: SMD: 0.34 95% CI: 0.05, 0.63 I^2: N/A Interpretation: Performance-based was low-quality evidence of no effect. Self-report was low-quality evidence noting a positive effect.
Goals and Planning	SMD: 0.13 95% CI: -0.06, 0.33 I^2: N/A Interpretation: Moderate-quality evidence of no effect on self-report

	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;"></td> <td style="padding: 5px;">measures. Quality was downgraded due to risk of bias.</td> </tr> </table> <p>Conclusions: Added PT communication during exercise that promotes patient self-efficacy and behavior change has very small to small increases on self-reported physical activity levels in older adults up to 12 months post-treatment. PTs should focus on building patient confidence to complete their exercises and reinforce how exercise is applicable for achieving functional goals. Identifying which types of communication improve patient-reported outcomes is critical, as PTs regularly converse with patients during care.</p>		measures. Quality was downgraded due to risk of bias.
	measures. Quality was downgraded due to risk of bias.		
<p>Miciak et al. A Framework for Establishing Connections in Physiotherapy Practice. 2018.²³</p>	<p>Purpose & Study Design: The purpose of this qualitative case series was to pinpoint methods that PTs use to establish meaningful TAs with patients. The study involved semi-structured interviews between 11 PTs and 7 patients. The study took place in direct-access, private practice PT clinics.</p> <p>Subjects: Inclusion criteria for PTs included ≥ 5 years of clinical experience and employment within a direct-access, private practice PT clinic. Inclusion criteria for patients included age between 18 and 64 years, at least 3 previous treatment sessions for a musculoskeletal condition, and the most recent treatment being within the past 12 weeks. Exclusion criteria for patients included cognitive impairment, systemic diseases, neurological diagnosis, or workers compensation. Of the 11 PTs, there were 5 males and 6 females. The age range of PTs was 36-60 years with the average age being 47.8 years. All PTs exceeded the inclusion criteria minimum with ≥ 10 years of clinical experience and most holding post-graduate specialty certificates. Of the 7 patients, there were 4 males and 3 females. The age range of patients was 18-62 years with the average age being 42.3 years.</p> <p>Results: From the semi-structured interviews, there were 3 main categories for establishing a TA including acknowledging the individual, giving-of-self, and using the body as a pivot point.</p> <p><u>Acknowledging the Individual:</u> This category contains subcategories of validating the patient’s experiences, individualizing the treatment approach, and providers and patients seeing each other as equal stakeholders. Validation of the patient’s experiences helps foster empathy and advocacy towards the patient. This also motivates the patient to improve and recover via the PT’s reassurance and confidence. Individualization of the treatment approach occurs by “considering the unique constellation of physical, psychological, social, and cultural experiences as well as the specific needs and goals of each patient.” Individualization entails approaching each patient with renewed enthusiasm and attention-to-detail, despite the repetition in caseload of diagnosis. PTs should embody this change by reframing communication, such as “based on our collaboration, this will be our plan of care for you” versus “this is my typical plan of care for low back pain”. Other methods entail altering and/or specifying exercises and interventions depending on the patient’s day-to-day routine. In relation to providers and patients seeing each other as equal stakeholders, this yields the opportunity for meaningful and collaborative</p>		

	<p>therapeutic relationships. Traditionally, medical providers are classified superiorly to patients; however, this refined approach of an 'equal ranking' and 'level playing field' helps eradicate any power imbalances. Perceived power imbalances are eradicated by the PT verbalizing their intentions for collaborative endeavors, such as consulting the patient on all decision-making or engaging in person-first small talk (i.e.- work, family, hobbies/interests) outside of the diagnosis. The provider should also shift focus from 'fixing' patients to working in tandem with patients.</p> <p><u>Giving-of-Self:</u> The category considers subcategories of internal and external interactions via "expanded personal investment of mental, emotional, and physical energy and involves actions that occur inside and outside of the direct patient-therapist interaction". Internal interactions entail initiatives such as more frequent check-ins as well as disclosing personal, yet conservative, information to patients. External interactions entail initiatives such as spending more time with chart review or interdisciplinary advocacy for the patient.</p> <p><u>Using the Body as a Pivot Point:</u> This category includes subcategories of facilitating the patient's connection to the body, clarifying physical barriers and solutions, and utilizing therapeutic touch. The process of facilitating the patient's connection to the body is through the PT educating on anatomy, process of healing, functional independence, and return to prior level of function. Other methods include feedback and cueing during interventions. Regarding clarification of physical barriers and solutions, PTs who consistently question, assess, and resolve issues aid in portraying their commitment to the patient. Use of therapeutic touch to bridge a gap is showcased during evaluations and treatments (i.e.- palpation, tactile cueing).</p> <p>Conclusions: Therapeutic relationships are critical between PTs and patients for successful plans of care. Through integrating the aforementioned strategies, PTs can establish a strong basis for practitioner-patient collaboration. The incorporation of these strategies will help to foster a patient-centered care approach.</p> <p>Other Notes: This article has information on the history of TA in the background and discussion section that would be advantageous for referencing in the PowerPoint Presentation.</p>
<p>Morera-Balaguer et al. Physical Therapists' Perceptions and Experiences about Barriers and Facilitators of Therapeutic</p>	<p>Purpose & Study Design: The purpose of this qualitative study was to assess PTs' experiences and insights on barriers and facilitators of a productive TA in the outpatient setting. The study used focus group interviews led by a trained facilitator with a discussion guide. The authors identified relationships between categories to develop hierarchical themes and subthemes with two independent researchers blindly reviewing the codes for agreement.</p> <p>Subjects: There were 119 PTs recruited from hospitals, health clinics, and nursing homes; however, only 21 PTs were included in the final study due to drop out or not meeting inclusion criteria. Of the subjects, 76% of PTs were female, with a mean age of 44 years, and a mean work experience of 21 years.</p>

Patient-Centered Relationships During Outpatient Rehabilitation: A Qualitative Study. 2018.²⁴

Description of Intervention(s): Discussions topics included when/how PTs talk with patients, situations when PTs feel comfortable or uncomfortable relating to patients, gaining patients' trust, assessing patient comprehension of PTs' instructions, communication failures, and how PTs improve patient relationships.

Results:

Barriers to the Therapeutic Relationship	
Professional	<ul style="list-style-type: none"> - Personal traits (perception of youth and lack of experience, having a bad day) - Interpersonal manners (poor manners, excessive trust, overly familiar, not being individualized) - Lack of training in communication skills (lack of assertiveness, discomfort with communicating bad news).
Patient	<ul style="list-style-type: none"> - Patient characteristics (dependent personalities, low self-efficacy) - Inappropriate behavior by patients and/or family (lying, alliance between family and therapist to coerce or hide information from the patient, lack of motivation) - Prejudices towards the therapist (bias) - Unrealistic expectations of treatment plan/outcomes (patient feels that therapy is ineffective due to nature of disease, malalignment of expectations) - Hidden interests (money, litigation, unemployment benefits)
Context	<ul style="list-style-type: none"> - Characteristics of the service organization and care coordination (lack of team coordination, too large caseloads, poor continuity of treatment) - Characteristics of the physical space (building design that is not conducive to maintaining patient privacy).
Facilitators of the Therapeutic Relationship	
Professional	<ul style="list-style-type: none"> - Personal characteristics (age of the therapist, perceived level of experience) - Interpersonal manners (traits such as patience, kindness, warm approach, confidence, empathy, active listening, positive attitude)

	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"></td> <td> <ul style="list-style-type: none"> - Providing information/advice (good vs bad information, integrating patient factors) - Positive treatment results (good outcomes increase patient satisfaction) </td> </tr> <tr> <td>Patient</td> <td> <ul style="list-style-type: none"> - Realistic expectations regarding treatment and plan of care/progression (patient has expectations of an achievable outcome which reduces frustration) </td> </tr> <tr> <td>Context</td> <td> <ul style="list-style-type: none"> - Intimacy (individual treatments in a closed room, ability to speak with patient) - Continuity and duration of treatment (number of sessions/time with the same therapist promotes trust) </td> </tr> </table> <p>Other Notes: This paper also takes room design into account. Data obtained from the perspective of the PT, not the patient. Interesting that self-efficacy was described as a “patient characteristic” versus being viewed as a modifiable behavior. PTs mood/attitude was emphasized as important, reaffirming the need to consider the role of professional burnout in TA. This is the only paper to identify “lack of assertiveness” by the PT as a barrier to establishing a positive TA, which runs counter to the rest of the literature on using a more collaborative approach.</p>		<ul style="list-style-type: none"> - Providing information/advice (good vs bad information, integrating patient factors) - Positive treatment results (good outcomes increase patient satisfaction) 	Patient	<ul style="list-style-type: none"> - Realistic expectations regarding treatment and plan of care/progression (patient has expectations of an achievable outcome which reduces frustration) 	Context	<ul style="list-style-type: none"> - Intimacy (individual treatments in a closed room, ability to speak with patient) - Continuity and duration of treatment (number of sessions/time with the same therapist promotes trust)
	<ul style="list-style-type: none"> - Providing information/advice (good vs bad information, integrating patient factors) - Positive treatment results (good outcomes increase patient satisfaction) 						
Patient	<ul style="list-style-type: none"> - Realistic expectations regarding treatment and plan of care/progression (patient has expectations of an achievable outcome which reduces frustration) 						
Context	<ul style="list-style-type: none"> - Intimacy (individual treatments in a closed room, ability to speak with patient) - Continuity and duration of treatment (number of sessions/time with the same therapist promotes trust) 						
<p>Taccolini et al. The role of the therapeutic alliance on pain relief in musculoskeletal rehabilitation: A systematic review. 2018.²⁵</p>	<p>Purpose and Study Design: The purpose of this systematic review was to determine the effect of a positive TA on pain relief outcomes in musculoskeletal rehabilitation. The authors specifically reviewed RCTs of PT treatments, as this had not been evaluated in previous systematic reviews on TA. A literature search of 8 databases was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines which resulted in 936 articles. Of those, 4 ultimately met the inclusion and exclusion criteria. Inclusion criteria included RCTs and non-RCTs of cohort studies for the treatment of any musculoskeletal condition by a PT and the use of ≥ 1 outcome measure for pain and TA, respectively.</p> <p>Subjects: All 4 of the included papers evaluated the effect of TA interventions on pain outcomes in participants with chronic low back pain. The majority of the 387 included subjects were ≥ 40 years old.</p> <p>Outcome Measures & Measurement Time (if applicable): The Visual Analog Scale, McGill Pain Questionnaire, and Pain Intensity Numerical Rating Scale were used to measure changes in pain. The Working Alliance Theory of Change Inventory (WATOCI), the Pain Rehabilitation Expectancies Scale working alliance subscale, and the Working Alliance Inventory (WAI) were used to assess the quality of the TA. Pain assessments were conducted before and after treatments in all studies. TA was assessed at different time points across studies.</p> <p>Description of Intervention(s): PT treatment for musculoskeletal conditions included exercise therapy, hydrotherapy, orthotics and prosthetics, physical agents, and specific intervention techniques such as Pilates or</p>						

	<p>manipulation. TA interventions included using psychologist-recommended communication and motivational techniques to improve the relationship in addition to PT interventions.</p> <p>Results: There was a divergence in the results of the studies. The 2 included RCTs demonstrated an increase in the TA, but the 2 cohort studies did not show an improvement in the alliance. One RCT demonstrated a predictive ability of the TA to predict pain outcomes- a 1-unit increase in TA corresponded with 0.044 points in pain reduction across trial arms, but comparison among the three intervention groups did not show a significant predictive model. Generally, studies that used incentive measures of the TA as a component of the treatment program verified a reduced pain status.</p> <p>Conclusions: The authors concluded that there is not evidence of a strong relationship between the TA and pain outcomes for patients with chronic back pain. Due to the specificity of the subject area and lack of available studies, it is difficult to accurately analyze the impact of the TA on pain for this specific population, and more studies are needed to assess the subjective and emotional factors related to PT treatment.</p>
<p>Lee et al. Feasibility of a Self-Determination Theory-Based Exercise Program in Community-Dwelling South Korean Older Adults: Experiences from a 13-Month Trial. 2016.²⁶</p> <p>This study was primarily conducted with older adult subjects.</p>	<p>Purpose: The purpose of this paper was to investigate the effectiveness of a community exercise program that utilized Self Determination Theory (SDT) informed motivational strategies that support autonomy, competence, and relatedness to promote exercise adherence, physical fitness, and quality of life in older adults. This paper also explores which motivational factors impact exercise adherence and if SDT works as a motivational strategy for older adults.</p> <p>Study Design: This article is a pre-post intervention study for a group exercise program targeted to older adults that was conducted for 13 months.</p> <p>Subjects: The study was conducted in South Korea, and 18 subjects met the inclusion criteria. This sample size was determined to be the most appropriate for a small group exercise program. The inclusion criteria was the ability to stand independently and Mini-Mental State Examination-Korean version score >24. Subjects with a body mass index >30, or diagnosis of visual impairments, dementia, cardiopulmonary disease, history of severe headaches, dizziness, or recent surgeries were excluded. Subjects were older (67.5 ± 3.79 years), and 78% identified as female. Prior to the study, 67% had never participated in a regular exercise program, and mean exercise was 7.8 minutes per day, 1.3 days per week.</p> <p>Outcome Measures & Measurement Time (if applicable): The physical fitness and quality of life measures, the Senior Fitness Test and 36-Item Short Form Health Survey (SF-36), were administered at baseline, 7 months, and 13 months during the trial. The Behavioral Regulation in Exercise Questionnaire-2 (BREQ-2) was administered at 7 months and 13 months to determine participant's motivations related to exercise adherence.</p>

Semi-structured group interviews with open-ended questions were used to explore factors related to adherence. Adherence was measured by the number of sessions participants attended. All outcome measurements were conducted by two PTs.

Description of Intervention(s): This study had one trial arm that included both a group exercise program and SDT-based motivational strategies.

Group Exercise Program: An exercise video game, YourShape: Fitness Evolved, Korean Version, was used for exercise content and administration and held at Korea University. Participants were asked to attend twice a week for 60 minutes per day for a total of 89 sessions. Each session was supervised by a PT who provided feedback and instruction for correct technique. The exercise program included Zen (tai chi- balance and lower body strength), Cardio Boxing, Aerobics, Leg Exercise, and Stretching routines from the video company. The intensity and total duration progressively increased during the trial, and routines were changed based on participant feedback.

SDT Motivational Strategies: Strategies for providing autonomy, competence and relatedness were utilized in the program design. To satisfy the autonomy realm, participants were given choices for the type of exercises conducted based on their preferences, total time for the program, and intensity of the session. In addition, they were provided a meaningful rationale of effectiveness of the exercise types, and their feelings and perspectives were acknowledged. For competence, the researchers provided information on current exercise recommendations, shared the participant's physical fitness results with them, and provided the participants with goals and plans based on their baseline measurements. The researchers incorporated relatedness by using a small group format and encouraged rapport building activities (eg. potlucks) with participants.

Results: The chart below describes participants' adherence to the program, identifies factors contributing to adherence, their motivations to exercise, and changes in quality of life and physical fitness outcomes.

Exercise Adherence	Average attendance rate: 84.47% at 7 months; 82.52% at 13 months
Factors Affecting Adherence	<ol style="list-style-type: none"> 1. Effectiveness of Exercise- improved postural control balance, strength, flexibility. Two subjects specifically mentioned fall prevention, reduction in blood pressure and weight. 2. Appropriate Level of Difficulty- gradual increase in intensity, effective but not too difficult. 3. Regular Lifestyle- having a fixed appointment for the class made it easy to

	<p>integrate into their routines and they were expected to attend. One participant remarked feeling grateful to have somewhere to go and something productive to do.</p> <ol style="list-style-type: none"> 4. Variety of Exercise Content- the changing routine reduced boredom and increased interest in the program. 5. Attention from Therapists- supervision by the PTs made the participants want to progress and felt that exercise was necessary and important. 6. Anxiety About Falling Behind- one participant mentioned not wanting to fall behind the other program participants on the exercises.
BREQ-2 (motivation for exercise)	<p>Self-regulation was the most highly rated motivator, then intrinsic motivation, introjected regulation, and extrinsic regulation at 7 months. At 13 months, intrinsic motivation was the highest followed by regulation, introjected regulation, and extrinsic regulation. Intrinsic motivation increased by 20% between 7 and 13 months, and self-regulation decreased by 26%.</p>
Physical Fitness (Senior Fitness Test)	<p>Significant differences in the 30s chair-to-stand test, 2-minute step test, 8' TUG, and arm curl test were observed at baseline and 13 months. There were also significant improvements on the 2-minute step test at 7 months. No significant differences were reported for the sit-and-reach test or back scratch test between baseline and 13 months.</p>
Quality of Life (SF-36)	<p>There were significant differences between baseline and 13 months on the social functioning and mental health domains. Social functioning improved at both 7 and 13 months, whereas mental health improved at 7 months and did not subsequently increase.</p>
<p>Conclusions: SDT-based motivational strategies implemented within the context of a group exercise program for older adults had a positive effect on exercise adherence, physical fitness, and quality of life outcomes. Participants had remarkably high adherence for this program and did not experience the same level of drop out reported in other programs. PTs should incorporate the SDT-based strategies in exercise programming, particularly Appropriate Level of Difficulty, Friendship, Attention of Therapists, and Variety of Exercise Content as these were most closely related to the psychological components of competence, relatedness, and autonomy. Short-term motivations for exercise were based on regulation (eg. effect of exercise) but evolved to intrinsic domains (enjoyment or satisfaction with exercise) long-term.</p>	

Ferreira et al. The therapeutic alliance between clinicians and patients predicts outcome in chronic low back pain. 2013.²⁷

Purpose: The purpose of this study was to determine if the TA between PTs and their patients can predict function, perceived treatment effect, pain, and disability outcomes in patients with chronic low back pain.

Study Design: This paper was a retrospective observational study of participants who were involved in an RCT of interventions for chronic low back pain. The RCT found that patients who receive motor control exercises and spinal manipulation interventions had better short-term function and perceptions of effort than general exercise, but not better medium or long-term outcomes. Separate linear regression models were used to determine if the TA was a non-specific predictor of outcome and whether it moderated treatment effects.

Subjects: Study participants (n = 182) were patients with nonspecific low back pain > 3 months who were between the ages of 18-80 being seen in an outpatient PT department at 3 clinics in Australia. Participants were excluded prior to randomization if they had a known or suspected low back pain pathology such as cancer, fracture, or infection or a condition that would contraindicate exercise or spinal manipulation. Participants were around 50 year of age, and over half were female.

Outcome Measures & Measurement Time (if applicable): Outcome measures were administered at baseline and during the final appointment of the trial (8 weeks). Measurements were obtained by a PT who was blinded to allocation. The PSFS was used to assess function, and the Global Perceived Effect Scale was used to assess perceived treatment effect on back pain. The Roland-Morris Disability Questionnaire was used as a secondary pain outcome. TA between the patient and PT was quantified with the WATOCI and administered only at the end of the second treatment session to separate alliance effects from treatment effects.

Description of Intervention(s): Participants were allocated to 3 different treatment groups: general exercises (strengthening and stretching back muscle groups and general education), individualized motor control exercises for trunk muscle coordination, and spinal manipulation to the spine or pelvis. The participants attended up to 12 treatment sessions over 8 weeks and were encouraged to exercise at home at least once per day. Participants were assigned to the same PT over the course of treatment.

Results: The treatment groups were similar for most baseline characteristics with the exclusions of WATOCI score being lower in the spinal manipulation group, and median duration of back pain per treatment group. General exercise median was 60 months, motor control exercises median was 36 months, and spinal manipulation group was 84 months. TA at baseline was a nonspecific predictor of outcome for the four outcome measures (pain, function, disability, and perceived effect of treatment). A 1-unit increase in the TA reduced pain by 0.044 units, which is comparable to a 1-standard deviation increase in the alliance decreasing numeric pain rating by 0.6 units. In particular, TA at baseline was more positively associated with global perceived effort for

	<p>participants in the spinal manipulation and general exercise groups than motor control exercises (1 standard deviation increase in TA resulted in 0.8 unit decrease in global perceived effect of pain). Predictive effects were not seen for the other outcomes.</p> <p>Conclusions: A positive TA between PTs and patients with chronic low back pain is associated with improved function, pain, perceived treatment effect, and disability outcomes at 8 weeks. A positive alliance can also predict improved outcomes for perceived effects of pain for individuals who receive spinal manipulation and general exercise interventions.</p>
<p>Besley et al. Assessing Therapeutic Relationships in Physiotherapy: Literature Review. 2011.²⁸</p>	<p>Purpose: The two aims of this systematic review were to identify the core components of the TA in the existing literature of physical therapy and to critically appraise the WAI and the Helping Alliance Questionnaire Version Two (HAQ-II).</p> <p>Study Design: This paper is a systematic review of articles on TA in PT. The authors used a PICOT search strategy (P: physical therapy or physiotherapy, O: therapeutic relationship or related terms) across 7 different databases. Included studies were explicitly related to physical therapy or physiotherapy, discussed some aspect of the therapeutic relationship between the patient and therapist as a key finding, and had a full text version available in English. Excluded studies were those published prior to 1990. Theoretical or discussion articles were not explicitly excluded but were too difficult to access. Papers were assessed for quality using the Critically Appraisal Skills Programme (CASP) tool. The authors synthesized the results of the review thematically. From the original 601 papers obtained in the search, 16 papers ultimately were selected based on the inclusion/exclusion criteria and in-depth reading. Four studies were theoretical or discussion articles, 1 was descriptive with qualitative elements, and the remaining 11 were qualitative studies.</p> <p>Subjects: There was a wide variety of patient populations represented across the 16 papers. Papers that evaluated patient perspectives included patients in private practice musculoskeletal clinics, and those with back pain, neurologic, cardiovascular, orthopedics, burn, and psychiatric conditions. Papers that evaluated PT perspectives included practice settings in primary health care, psychiatric, private practice, and other occupational settings.</p> <p>Description of Intervention(s): Methods of data collection varied across studies including in-depth conversations, interviews, focus groups, nominal group technique, and observation.</p> <p>Results: Eight key themes emerged from the review: patient expectations, personalized therapy, partnership, PT roles and responsibilities, congruence, communication, relational aspects, and influencing factors.</p>

Patient Expectations: Patient expectations pertain to the PT treatment and outcomes. Expectations were largely dependent on if patients had received previous PT, those who had no prior experience had low or no preconceived expectations. Those with past experience had definite expectations about their course of treatment including assessment, diagnosis, explanation of the condition and treatment, self-management strategies, and symptom relief or reduction. Patients who benefited from a previous treatment but did not receive the modality at subsequent sessions were often disappointed, especially if they were not given the chance to discuss treatment options. PTs identified that patients having unrealistic expectations was detrimental to the alliance.

Personalized Therapy: Personalized therapy encompasses both respecting the patient as an individual (cultural humility, respect for differences) and practicing holistically. Understanding the patient's personal factors and situational context is as important as understanding the individual pathology. *How* the treatment is done as opposed to *what* is done enhances the quality of the PT treatment, leading to better outcomes.

Partnership: Partnership between the PT and patient is the cornerstone of the TA. This partnership is built on "trust, mutual respect, knowledge exchange, power balance, active involvement, and collaboration with the patient." PTs also identified that active involvement or collaboration contributed most to the alliance. Active participation is associated with power balance in the interactive model which emphasizes the collaboration of two equals making different contributions.

PT roles and responsibilities: The PT's ability to motivate, educate, and engage in a professional manner is considered central to the alliance from both the PT and patient perspectives. Providing self-management strategies was considered key to helping patients take control over their condition. The PT's interpersonal skills, professionalism, and teaching ability are critical for educating and empowering patients.

Congruence: PTs identified that congruence between the patient and therapist regarding goals, treatment, and problem identification were important, but patients only identified goals and treatment congruence. PTs believed there was tacit understanding of goals, but these were not always understood by the patients. Having a verbal contract between the PT and patient allows both parties to agree on goals and treatment strategies.

Communication: Communication between the PT and patient, including nonverbal communication, active listening, and visual aids were components that contribute to the alliance. Nonverbal strategies such as touch and proximity, facial expression, posture, and listening were important skills to enhance the alliance to demonstrate care and concern. Using visual aids such as diagrams and models helps the patient understand instructions and education more effectively.

	<p><u>Relational Aspects:</u> Friendliness, empathy, caring, warmth, and faith that the PT believes in the patient were all considered important themes. The papers identifying these traits were predominately patient perspectives.</p> <p><u>Influencing Factors:</u> Three sub themes of influencing factors were identified: external factors, PT prerequisites, patient prerequisites. External factors include the structure and provision of PT care such as waiting time, access, and having adequate time with the therapist. Not being kept waiting for > 10 minutes and having flexible appointment times available was beneficial. In addition, a pleasant and welcoming environment made patients at ease. Patients valued therapists whom they perceived as knowledgeable and provided an explanation of the problem. A patient's personal characteristics, willingness to engage, and resources also influenced the alliance.</p> <p><u>Conceptual Basis of the WAI/HAQ-II:</u> Both outcome measures address the core themes of congruence between patient and therapist, and the PT's roles and responsibilities. Neither outcome measure addressed communication, and personalization and relational aspects were only in the HAQ-II. The WAI long form addressed patient expectations, one relational aspect, PT roles, and partnership more thoroughly than the short form.</p> <p>Conclusions: By focusing on the 8 themes, PT's can improve the TA with their patients which is important for positive outcomes. The WAI short form and HAQ-II address some, but not all, identified components of the alliance. It may be beneficial to researchers and clinicians to develop a PT-specific TA outcome measure.</p>
<p>Diógenes et al. Dimensions of satisfaction of older adult brazilian outpatients with physical therapy. 2009.²⁹</p> <p>This study was primarily conducted with older adult subjects.</p>	<p>Purpose: The purpose of this paper was to determine the main dimensions of satisfaction with outpatient PT services in older adults in Brazil. Additionally, the authors developed and validated a 23-item patient satisfaction scale for this population.</p> <p>Study Design: Participants were provided with the 23-item survey in the waiting room of the PT clinics. Psychometric properties were tested for reliability via Cronbach's alpha, content analysis, simultaneous validity, and construct validity. A 6-item Likert scale of satisfaction from "very bad" to "excellent" were used to assess satisfaction.</p> <p>Subjects: Study participants included 221 older adult patients receiving outpatient PT services at 29 private practices in Brazil. Subject requirements included age \geq 60, having participated in 5 to 60 PT sessions at the clinic, and good cognitive function based on Mini-Mental State Examination score. Patients were being treated for rheumatologic, orthopedic, or neurologic conditions. Over 76% of respondents were female, and the average age was 70.9 years.</p>

	<p>Outcome Measures & Measurement Time (if applicable): Data were analyzed with descriptive and analytical statistics, reliability estimates, and measurements of internal consistency. Factorial analysis was used to determine the relationship of the satisfaction indicators.</p> <p>Results: Overall, 76.9% of respondents reported that they were satisfied with the care they received. The question items that pertained to PT-patient interactions were responsible for the highest level of patient satisfaction. These items were: doubt resolution by the PT, a sense of security transmitted by the PT during treatment, courtesy displayed by the PT, PT treated patients with respect, PT provided clear explanations of treatment at the first session, the PT provided opportunity to express personal wishes during the assessment, and thoroughness of the assessment. Items pertaining to convenience, such as parking, clinic location, and availability of appointments had the lowest internal consistency with satisfaction.</p> <p>Conclusions: Older adult outpatients in Brazil rated their satisfaction with PT services based on the quality of the patient-therapist relationship. Patients associated improved satisfaction with the relationship to improved prognosis and treatment, indicating that more attentive care is of higher quality. While the authors reported that convenience domains had the lowest association with patient satisfaction, they point out that this is counter to studies conducted in the United States. Overall, PTs who would like to improve outcomes for patient satisfaction may want to focus on improving interpersonal relationships.</p>
--	--

Person-Centered Care	
<p>Coulourides et al. Moving Toward Implementation of Person-Centered Care for Older Adults in Community-Based Medical and Social Service Settings: "You Only Get Things Done"</p>	<p>Purpose & Study Design: The purpose of this qualitative study was to review literature on person-centered care for older adults with chronic conditions and functional limitations via requesting feedback from social and healthcare leaders who work with older adults. The social and healthcare leaders engaged in semi-structured telephone interviews of approximately 30 to 48 minutes in length.</p> <p>Subjects: The participants consisted of social and healthcare leaders from 9 of 16 community-based social and healthcare corporations serving older adults in the Pacific Northwest. Corporations and their leaders were required to meet inclusion criteria of active integration of person-centered care or social service delivery for older adults with chronic diagnoses and functional limitations. Other inclusion criteria involved corporations being located in California, Washington, or Oregon as well as focus on older adults in outpatient settings.</p> <p>Results: There were 3 themes for person-centered care including operationalization (including environmental</p>

<p>When Working in Concert with Clients". 2016.⁷</p> <p>This study was primarily conducted with older adult subjects.</p>	<p>culture, attributes of care, and measurement), feasibility and challenges, and language. For operationalization of patient-centered care, most corporations noted team-based and/or multidisciplinary care and services, home-based care management, and motivational interviewing as key aspects. Apart from operationalization, the themes of feasibility and challenges mainly entailed financial resources and structure as well as staffing. In relation to financial resources, corporations expressed priority for being person-driven versus revenue-driven. Challenges mainly relate to staffing, in which over-working and burnout directly affect PCC. The theme of language focused mainly on the discrepancy between the terms "patient-centered" and "person-centered", in which corporations all believed either term was appropriate.</p> <p>Other Notes: The study's background provides good information on the evolution of person-centered care.</p>
<p>Kogan et al. Person-Centered Care for Older Adults with Chronic Conditions and Functional Impairment: A Systematic Literature Review. 2016.⁸</p> <p>This study was primarily conducted with older adult subjects.</p>	<p>Purpose: The purpose of this systematic literature review was to showcase the current availability of evidence-based literature on the topic of person-centered care for the geriatric population. The efforts on this study "guided the development of the American Geriatrics Society expert panel statement, Person-Centered Care: A Definition and Essential Elements, which presents a standardized, agreed-upon definition and list of elements of person-centered care for older adults with chronic conditions or functional impairment" for the goal of a "greater understanding of what person-centered care is and for how to operationalize person-centered care models." The systematic literature review noted 3 main study objectives including improving knowledge of the existing consensus on person-centered care for the geriatric population, evaluating definitions/descriptions of person-centered care, and highlighting critical elements required for person-centered care.</p> <p>Study Design: Pertinent literature was discovered through scientific database review, review of reference lists for specific articles, inter-professional article recommendations/referrals, and review of conference abstracts from the 2014 Gerontological Society of America. After funneling down from the initial pool of evidence-based literature, the finalized review included 132 total materials via non-duplicate journal articles, reports, books, editorials, and newspaper articles. Finalized materials were categorized by target population, measurement, new avenues for person/patient centered care, and perspectives of consumers.</p> <p>Results: <u>Target Population:</u> The main question that was addressed was what person-centered care looks like for the geriatric population. Often, person-centered care is devoid of focus on the individual and diverse needs of older adults with chronic illnesses and functional limitations. There is a growing demand for person-centered care across target populations of outpatient care (home-based and community-based), acute care, transitional care, skilled nursing care, long-term care, specialized care, palliative care, and hospice care.</p>

Measurement: Of all the tools the reportedly measure person-centered care, most measures have not been officially deemed valid and/or reliable via strict analysis of psychometric properties. Since most measures are lacking psychometric support, satisfaction of person-centered care is often gauged on subjective reports of satisfaction and/or objective patient progress. There is a need for establishing “standardized, accepted elements of PCC, including developing a common definition, and measurement tools targeting patients, their family members, and providers”.

New Avenues for Person-Centered Care: The up-and-coming initiatives for operationalizing person-centered care is being observed in acute care and long-term care settings currently, in which initiatives consist of four new types of outcome measures gauging practitioner burnout, job turnover, stress of conscience via “feelings of emotional distress and a burdened conscience that result when workers feel they cannot deliver the level of care they hope to provide”, and job satisfaction. Thus far, measurement of these factors has subsequently led to minimized burnout, decreased job turnover, reduced stress of conscience, and enhanced job satisfaction. Future initiatives hope to expand to other healthcare settings, such as primary care and home health.

Perspectives of Consumers: The consumers, patients, report acknowledgement of healthcare verbalized initiatives to optimize person-centered care; however, patients feel providers fall short on integrating concrete actions to support these initiatives. Other areas of consumer concern relate to provider-patient communication and/or decision making. Specifically, patients verbalize that practitioners fail to provide plans of care that are personalized, considers the patient’s preferences, and provides clear education on how to eventually be independent with long-term self-management.

Throughout the 132 materials in the literature review, the terminology involved the terms of “patient-centered care”, “patient-directed care”, and “relationship-centered care”. Of these terms, the values and/or domains associated with these terms included “holistic or whole-person care”, “respect and value”, “choice”, “dignity”, “self-determination” and “purposeful living or encouragement of continued social roles”. Other elements that were used to describe person-centered care are “coordinated and integrated”, “focused and targeted”, “multidisciplinary team-based”, “connected and coordinated physical health and supportive services”, “involvement of family and fictive kin”, and “emphasis on person and family experience”.

Conclusions: Person-centered care is an up-and-coming topic for healthcare providers working with older adults, especially in the long-term care settings; however, person-centered care is hoping to expand and be regularly integrated into all healthcare settings. As there are various terms, values and/or domains, and elements associated with person-centered care, future research will involve agreeing on a single, consensus definition to effectively operationalize the care initiatives.

	<p>Other Notes: The background section provides a good argument for why the geriatric population is a priority target group for person-centered care, which would be beneficial to include in the presentation.</p>
<p>The American Geriatrics Society Expert Panel on Person-Centered Care. Person-Centered Care: A Definition and Essential Elements. 2016.⁶</p> <p>This study was primarily conducted with older adult subjects.</p>	<p>Purpose: The purpose of this expert panel review was to establish a single, consensus definition of “person-centered care” compared to “patient-centered care” to “encompass the entirety of a person’s needs and preferences, beyond just the clinical or medical”. Despite healthcare initiatives towards advocating for person-centered care, there is no existing definition and explanation of what that care approach entails; thus, this expert panel review sought to define person-centered care to improve care specifically for older adults with chronic conditions and/or functional limitations.</p> <p>Study Design: The expert panel consisted of 14 individuals who specialize in person-centered care principles. Fields represented included gerontology, geriatric medicine and oncology, gerontological social work and nursing, health policy and finance, law, long-term care delivery, and public health.</p> <p>Conclusion: The finalized definition was drafted from a previously extensive systematic literature review, in which person-centered care ultimately means that “individuals’ values and preferences are elicited and, once expressed, guide all aspects of their health care, supporting their realistic health and life goals”. This is achieved by a “dynamic relationship among individuals, others who are important to them, and all relevant providers.” Key elements to this definition consist of a personalized and goal-oriented plan of care, continuous review/revision to the plan of care, one primary/lead healthcare point of contact, ongoing interdisciplinary communication for patient’s plan of care, consistent sharing of information, education and training for patients and providers, and feedback from patients and providers for improvement. Other considerations for person-centered care involve communication, team-based care, coordination, and environment.</p> <p>Barriers to implementation of a person-centered care include inconsistent terminology, traditional approaches to clinical practice, physician workload, misaligned incentives, identification of appropriate indicators, provider concerns for risk and safety, lack of advanced care planning, lack of payment structures, and lack of continuity in health records.</p>
<p>Sidani et al. Patient-Centered Care: Clarification of its Specific Elements to Facilitate</p>	<p>Purpose: The purpose of this literature review was to identify specific and non-specific elements of PCC integrated into the realm of healthcare, in which specific elements related to activities while non-specific elements related to the “medium for delivering PCC”.</p> <p>Study Design: Pertinent literature was identified through researching evidence-based databases. Studies were included if they were written in English, had adult subjects, and were published between 1995 and 2012. The</p>

<p>Interprofessional Care. 2014.</p>	<p>finalized review entailed 178 studies. From the included studies, the process of extracting/analyzing data involved two steps. The 1st step evaluated the “conceptual definitions of PCC to delineate the specific elements”. The 2nd step focused on “reviewing the implementation of PCC to identify activities performed within each component”.</p> <p>Results: In the conceptual definitions of PCC from the reviewed studies, the specific elements included emphasis on the “domains of patients’ health and/or life (e.g. physical and psychosocial needs, preferences, values)”. There was also emphasis on three specific elements that are indispensable to PCC including holistic care, collaborative care, and responsive care. The element of holistic care involved “all domains of health (i.e. bio-physical, cognitive, emotional, behavioral, social and spiritual), and addresses health promotion, and illness prevention and management”. Important factors for attaining holistic care involve being comprehensive, acknowledging all patient needs, and valuing the “whole person” approach. Some activities for attaining holistic care entailed distribution of physical care, comfort, emotional support, education, communication. In addition, there should be organization of a plan of care that reflects “health promotion, illness prevention and behavioral change strategies in patients’ care”. The element of collaborative care involved shared decision-making as well as a “partnership between the healthcare professional and the patient that aims to facilitate patients’ participation in making care-related decisions and in carrying out treatment or self-management recommendations”. Pertinent factors for attaining collaborative care included encouraging patient participation in decision-making to foster independence and effective self-management, developing a strong practitioner-patient relationship, valuing patient preferences, establishing a “common ground on what the problem is” to efficiently problem solve, formulating agreed upon goals, engaging in timely communication strategies, providing thorough patient education, and sharing “power and responsibility”. The element of responsive care involved customized care through consistent interventions that adhere to patient “needs, values and preferences”. The necessary factor for achieving responsive care entailed recognizing and addressing “patients’ individual needs, experiences, expectations and knowledge”. Actions to achieve involved acknowledging the patient as an individual rather than a diagnosis, honoring patient preferences, empathizing with patient emotions, respecting patient autonomy, and being flexible with the plan of care. Apart from the specific elements of PCC, the non-specific element of PCC relied on the TR. This concept involves a “trusting and nurturing relationship in which healthcare professionals and patients respect each other, and exchange information that guides the planning, implementation and evaluation of care”.</p> <p>Conclusions: PCC involves integration of both specific and non-specific elements. The specific elements entail holistic care, collaborative care, and responsive care. The non-specific elements involve establishment of a therapeutic relationship.</p>
--------------------------------------	--

Bibliography

1. Fuertes JN, Toporovsky A, Reyes M, Osborne JB. The physician-patient working alliance: Theory, research, and future possibilities. *Patient Educ. Couns.* 2017;100(4):610-615. doi:10.1016/j.pec.2016.10.018.
2. Schnur JB, Montgomery GH. A systematic review of therapeutic alliance, group cohesion, empathy, and goal consensus/collaboration in psychotherapeutic interventions in cancer: Uncommon factors? *Clin. Psychol. Rev.* 2010;30(2):238-247. doi:10.1016/j.cpr.2009.11.005.
3. Bordin ES. The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy: Theory, Research & Practice* 1979;16(3):252-260. doi:10.1037/h0085885.
4. Sidani S, Fox M. Patient-centered care: clarification of its specific elements to facilitate interprofessional care. *J. Interprof. Care* 2014;28(2):134-141. doi:10.3109/13561820.2013.862519.
5. Josephson I, Woodward-Kron R, Delany C, Hiller A. Evaluative language in physiotherapy practice: How does it contribute to the therapeutic relationship? *Soc. Sci. Med.* 2015;143:128-136. doi:10.1016/j.socscimed.2015.08.038.
6. American Geriatrics Society Expert Panel on Person-Centered Care. Person-Centered Care: A Definition and Essential Elements. *J. Am. Geriatr. Soc.* 2016;64(1):15-18. doi:10.1111/jgs.13866.
7. Coulourides Kogan A, Wilber K, Mosqueda L. Moving Toward Implementation of Person-Centered Care for Older Adults in Community-Based Medical and Social Service Settings: "You Only Get Things Done When Working in Concert with Clients". *J. Am. Geriatr. Soc.* 2016;64(1):e8-14. doi:10.1111/jgs.13876.
8. Kogan AC, Wilber K, Mosqueda L. Person-Centered Care for Older Adults with Chronic Conditions and Functional Impairment: A Systematic Literature Review. *J. Am. Geriatr. Soc.* 2016;64(1):e1-7. doi:10.1111/jgs.13873.
9. World Health Organization. WHO Global Strategy on Integrated People-Centered Health Services 2016-2026: Executive Summary. 2015. Available at: https://apps.who.int/iris/bitstream/handle/10665/155002/WHO_HIS_SDS_2015.6_eng.pdf. Accessed February 11, 2021.
10. Hamovitch EK, Choy-Brown M, Stanhope V. Person-Centered Care and the Therapeutic Alliance. *Community Ment. Health J.* 2018;54(7):951-958. doi:10.1007/s10597-018-0295-z.
11. Hussain RA, Carstensen T, Yazdani F, Ellingham B, Bonsaksen T. Short-term changes in occupational therapy students' self-efficacy for therapeutic use of self. *British Journal of Occupational Therapy* 2018;81(5):276-284. doi:10.1177/0308022617745007.
12. Carstensen T, Bonsaksen T. Differences and similarities in therapeutic mode use between occupational therapists and occupational therapy students in Norway. *Scand J Occup Ther* 2017;24(6):448-454. doi:10.1080/11038128.2016.1261940.
13. Hall AM, Ferreira PH, Maher CG, Latimer J, Ferreira ML. The influence of the therapist-patient relationship on treatment outcome in physical rehabilitation: a systematic review. *Phys. Ther.* 2010;90(8):1099-1110. doi:10.2522/ptj.20090245.

14. Zhang M, Zhao H, Meng F-P. Elderspeak to resident dementia patients increases resistiveness to care in health care profession. *Inquiry* 2020;57:46958020948668. doi:10.1177/0046958020948668.
15. Portacolone E, Covinsky KE, Johnson JK, Halpern J. Expectations and concerns of older adults with cognitive impairment about their relationship with medical providers: A call for therapeutic alliances. *Qual. Health Res.* 2020;30(10):1584-1595. doi:10.1177/1049732320925796.
16. Raber C, Teitelman J, Watts JH. Applying the intentional relationship model to persons with dementia: A retrospective analysis. *Phys Occup Ther Geriatr* 2019;37(1):32-49. doi:10.1080/02703181.2019.1611690.
17. Hatton AL, Mandrusiak A. A single clinical experience in a nursing home improves physiotherapy students' attitudes towards, and confidence to communicate with, older people. *Phys Occup Ther Geriatr* 2018:1-11. doi:10.1080/02703181.2018.1449164.
18. Barba B, Stump M, Fitzsimmons S. The role of therapeutic use of self in the application of nonpharmacological interventions. *J Gerontol Nurs* 2014;40(8):9-12. doi:10.3928/00989134-20140609-02.
19. Pendleton H. *Pedgretti's Occupational Therapy: Practice Skills for Physical Dysfunction*. St. Louis, Missouri: Elsevier; 2013.
20. Moore AJ, Holden MA, Foster NE, Jinks C. Therapeutic alliance facilitates adherence to physiotherapy-led exercise and physical activity for older adults with knee pain: a longitudinal qualitative study. *J Physiother* 2020;66(1):45-53. doi:10.1016/j.jphys.2019.11.004.
21. Lotzke H, Brisby H, Gutke A, et al. A Person-Centered Prehabilitation Program Based on Cognitive-Behavioral Physical Therapy for Patients Scheduled for Lumbar Fusion Surgery: A Randomized Controlled Trial. *Phys. Ther.* 2019;99(8):1069-1088. doi:10.1093/ptj/pzz020.
22. Lakke S, Foijer M, Dehner L, Krijnen W, Hobbelen H. The added value of therapist communication on the effect of physical therapy treatment in older adults; a systematic review and meta-analysis. *Patient Educ. Couns.* 2019;102(2):253-265. doi:10.1016/j.pec.2018.09.020.
23. Miciak M, Mayan M, Brown C, Joyce AS, Gross DP. A framework for establishing connections in physiotherapy practice. *Physiother Theory Pract* 2019;35(1):40-56. doi:10.1080/09593985.2018.1434707.
24. Morera-Balaguer J, Botella-Rico JM, Martínez-González MC, Medina-Mirapeix F, Rodríguez-Nogueira Ó. Physical therapists' perceptions and experiences about barriers and facilitators of therapeutic patient-centred relationships during outpatient rehabilitation: a qualitative study. *Braz J Phys Ther* 2018;22(6):484-492. doi:10.1016/j.bjpt.2018.04.003.
25. Taccolini Manzoni AC, Bastos de Oliveira NT, Nunes Cabral CM, Aquaroni Ricci N. The role of the therapeutic alliance on pain relief in musculoskeletal rehabilitation: A systematic review. *Physiother Theory Pract* 2018;34(12):901-915. doi:10.1080/09593985.2018.1431343.
26. Lee M, Kim MJ, Suh D, Kim J, Jo E, Yoon B. Feasibility of a Self-Determination Theory-Based Exercise Program in Community-Dwelling South Korean Older Adults: Experiences from a 13-Month Trial. *J. Aging Phys. Act.* 2016;24(1):8-21. doi:10.1123/japa.2014-0056.

27. Ferreira PH, Ferreira ML, Maher CG, Refshauge KM, Latimer J, Adams RD. The therapeutic alliance between clinicians and patients predicts outcome in chronic low back pain. *Phys. Ther.* 2013;93(4):470-478. doi:10.2522/ptj.20120137.
28. Besley J, Kayes NM, McPherson KM. Assessing Therapeutic Relationships in Physiotherapy: Literature Review. *New Zealand Journal of Physiotherapy* 2011;39(2):81-91.
29. Diógenes TPM, Mendonça K, Guerra RO. Dimensions of satisfaction of older adult brazilian outpatients with physical therapy. *Braz J Phys Ther* 2009;13(4):301-307. doi:10.1590/S1413-35552009005000038.