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A Systematic Review of Recommendations for Behavioral Health Services for Transgender and Gender Diverse Adults: The Three-Legged Stool of Evidence-Based Practice is Unbalanced

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Abstract

There is a growing literature of clinical recommendations for transgender and gender diverse (TGD) affirming behavioral health care, yet it is unknown to what extent these recommendations are rooted in evidence-based practice (EBP). This systematic review included 65 articles published between 2009 and 2018 with recommendations for behavioral health services with TGD adults, emphasizing general clinical care. Coded variables included type of article, participant demographics, aspects of EBP, and whether care was informed by objective assessment. Most articles did not equally draw from all components of EBP. Recommendations for specific clinical problems are increasingly available and address diversity within TGD communities. More research, including clinical trials adapting established interventions, is needed to inform state-of-the-art TGD-affirmative behavioral health care.

Keywords

transgender and gender diverse; evidence-based practice; clinical recommendations; gender nonconforming; clinical judgment; research evidence; client characteristics

Lesbian, gay, bisexual (LGB), and transgender and gender diverse (TGD) individuals experience disparate rates of discrimination, rejection, and harassment related to their sexual orientation and gender identity compared to their heterosexual and cisgender counterparts

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(Grant et al., 2010; Meyer, 2003). Previous research demonstrates a relationship between these negative experiences and poorer mental health outcomes (Hendricks & Testa, 2012; Meyer, 2003). Research has predominantly focused on acknowledging and reducing these disparities for LGB individuals but until recently the impact these negative experiences have on TGD individuals was largely overlooked. Prior to 2010, there were few published papers in mental health fields related to transgender and gender diverse people (Blumer et al., 2012; Singh & Shelton, 2011). The TGD-related literature is growing, however, as indicated by Moradi et al (2016) who conducted a major content analysis of academic literature on transgender people and issues and coded 960 publications over the 11 year inclusion span. The authors identified 54% of the articles as non-empirical and the bulk (81.9%) of these publications were within psychology. While Moradi and colleagues identified the inclusion of "T" within broad LGBT literature as an ongoing problem as many articles did not have a particular focus on TGD identities or topics, a promising finding was that more than half of the coded publications were published in the last 4 years of the 11 year window, indicating a sharp rise in the TGD scholarship. One important area of this scholarship is the mental health needs and treatment recommendations for TGD people. In this manuscript we review 65 articles published between 2009 and 2018 that offer recommendations for behavioral health services with TGD adults following Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Guidelines (Shamseer et al., 2015). We aim to establish the role of evidence-based practice in the TGD clinical literature.

Reasons TGD People Seek Mental Health Services

Although many TGD people lead healthy, productive lives, especially if they are able to access affirming medical care (Kattari et al., 2020; Tucker et al., 2018), transgender and gender diverse individuals seek mental health services for an abundance of reasons, both related and unrelated to gender identity (Benson, 2013). In a U.S. survey of 27,715 TGD respondents, 77% reported wanting counseling for their gender identity or transition throughout their life (James et al., 2015). Beyond accessing care for gender-related issues, TGD individuals may seek mental health services due to psychological distress. Largely stemming from exposure to and internalization of marginalization stress (Hendricks & Testa, 2012), systematic reviews demonstrate high rates of psychological distress within TGD populations. For example, Valentine and Shipherd (2018) conducted a review of 77 studies published between 1997 and 2017 on mental health outcomes of TGD populations. Their review revealed depression as the most commonly reported symptom followed by suicidal ideation and behavior and substance use. Several other systemic reviews have yielded similar findings, plus identifying elevated rates of anxiety disorders and exposure to potentially traumatic events as well (e.g., McCann & Brown, 2018; Millet et al., 2017; Wolford-Clevenger et al., 2018). McCann and Brown (2018) also emphasized the impact of environment as a risk factor, such as discrimination at work or in housing, and lack of protective factors like social support on rates of psychological distress.

Beyond experiencing psychological distress or seeking therapy to explore their gender identity, many TGD individuals interact with mental health professionals in their efforts to seek gender affirming medical services including hormone therapy and surgery (Lev, 2009). This practice stems from the World Professional Association for Transgender Health's

Standards of Care (SOC; Coleman et al., 2012), most recently published as version 7 in 2009. The SOC historically have required TGD individuals to obtain letters of referral from qualified mental health providers prior to undergoing medical gender affirmation. While the letter "requirement" is now meant to be applied flexibly in SOC version 7, there is still a perception that the referral letter is required, with arguments this gatekeeping hinders care and interferes with TGD individuals' autonomy (Mizock & Lundquist, 2016; Toivonen & Dobson, 2017). In addition to gatekeeping, systemic and sociopolitical factors such as higher rates of healthcare discrimination amongst TGD people of color, previous negative or unhelpful therapy experiences, few available appropriate providers in underserved geographic areas, or being uninsured or underinsured create further barriers or delayed care for some TGD populations (Bith-Melander et al., 2010; Holt et al., 2020; Kattari et al., 2015; Shelton & Lester, 2020).

Experiences of TGD People in Therapy

Despite the high need for mental health services, TGD individuals have mixed experiences in therapy. TGD individuals have historically been marginalized by the mental health community and stigmatized with the inclusion of diagnoses that pathologize non-cisgender identities in the DSM (Green et al., 2011; Mizock & Lundquist, 2016). Marginalization within therapy sessions may include over or underemphasizing the client's gender identity, placing the burden of therapist education on the TGD client, delaying access to medical care, having outdated conceptions of gender, and misgendering the client (e.g. Holt et al., 2020; Mizock & Lundquist, 2016). Amidst these problems, researchers and clinicians have recently emphasized the need for affirming therapy practices with TGD individuals (e.g. American Psychological Association, 2015; dickey & Singh, 2016). Efforts to reduce gatekeeping in the newest SOC and the switch from Gender Identity Disorder to Gender Dysphoria in the DSM-5 also are major shifts towards being more TGD-affirming within psychology and related disciplines in the past decade. However, the most important step towards making psychological services more TGD-affirming is the publication of guidelines by professional organizations such as the American Counseling Association's (2010) "Competencies for Counseling with Transgender Clients" and the American Psychological Association's (2015) "Guidelines for Psychological Practice with Transgender and Gender Nonconforming People."

The publication of clinical guidelines indicates the importance of providing affirming mental health care to TGD populations. However, there is also a need to provide the highest *quality* mental health care that reflects best practices for the clinical concerns being treated. The empirical base for treatments for depression, anxiety, substance use, and other disorders are strong, particularly related to cognitive-behavioral treatments (e.g. Cuijpers et al., 2014). The field has gold-standard treatments for many disorders impacting TGD populations, yet a systematic review on the inclusion of gender identity demographic data of randomized controlled trials for anxiety and depression found that zero articles reported non-binary gender identities and only one out of 232 examined articles reported participants' sexual orientations (Heck et al., 2017). Amidst this backdrop, providers wishing to provide services for TGD clients and utilize empirically supported treatments that are available for a variety of mental health concerns do not have access to the highest quality research evidence from

randomized controlled trials to inform the care they provide. For example, some providers working with TGD clients seem to rely on their own experience or training resources they can find (Holt et al., 2020). Lack of stringent trials does not mean clinicians are lost to provide excellent psychological services to TGD populations, but rather highlights the necessity of a well-balanced evidence-based practice approach.

Evidenced-Based Practice Model

Evidence-based practice (EBP) is an approach to treatment and assessment that emphasizes the integration of these three domains: the best research evidence, clinical judgment, and patients' characteristics, values, and contexts (American Psychological Association, 2006), sometimes called the three-legged stool of EBP. The implementation of EBP integrates these factors into clinical decision making, offering a way to both translate the results of empirically supported treatments into the consulting room and individualize treatment. The "best research evidence" spans a range of empirical evidence including qualitative research, case studies, and randomized clinical trials, with the latter being the strongest evidence. Clinical judgment relies on the clinician's judgment, knowledge, self-reflection, interpretation of objective data when available, and education to implement research-supported treatment and tailor treatment to their specific clients. Finally, patients' characteristics, values, and contexts means EBP attends to clients' individual differences and contexts to ensure treatment is culturally-sensitive. For several decades the consideration of environment and culture has been incorporated into psychological and therapy practice (Boroughs et al., 2015). This often entails attention to cultural competency, such as Sue's (1992) three domains: awareness of one's beliefs and biases, knowledge and understanding of the cultural groups, and skills to provide culturally-sensitive treatment. The published practice guidelines by professional organizations (American Counseling Association, 2010; American Psychological Association, 2015) provide important guidance for culturally-responsive practice with individuals who identify as TGD.

Objective assessment is an important element of EBP that intersects the 3 legs of the EBP 3-legged stool described above (Levant, 2005; Spring 2007). The EBP model acknowledges potential biases in clinical judgement (APA, 2006) and highlights the importance of objective assessment to inform clinical decision making. Objective assessment is informed by research and must be culturally appropriate. Assessment broadly includes using validated measures to guide clinical decision making, evaluate treatment progress, and assess trans-theoretical factors of therapy. Unique to clinical work with TGD individuals, assessment is integral to the letter writing process as detailed in the SOC, which recommends therapists assess gender dysphoria in TGD individuals seeking a letter of support for gender-affirming medical procedures. As such, using validated, culturally sensitive, objective assessment tools is an important factor when evaluating the strength of EBP (Christon et al., 2015).

The quality of treatment is heightened with the integration of evidence-based practice and multicultural competence. Meta-analyses show culturally-adapted therapy to be more effective than no therapy or treatment as usual with racial and ethnic groups (Kalibatseva & Leong, 2014). Leong and Lee's (2006) Cultural Accommodation Model recommends evidence-based practice as a foundation for integrating culture-specific factors in treatments.

Culturally-sensitive treatment may include adapting empirically supported treatments or utilizing focus groups and community-based research to build targeted interventions. Both approaches can lead to appropriate treatments so long as cultural adaptations are grounded in evidence (Kalibatseva & Long, 2014). As an example of this approach, Pachankis et al. (2015) adapted the Unified Protocol for the Transdiagnostic Treatment of Emotional Disorders (Barlow et al., 2010) to be LGB-affirming and completed a randomized controlled trial with young adult gay and bisexual men which resulted in a significant reduction in depressive symptoms and alcohol use problems. While there are no known randomized clinical trials of adapted treatments for TGD populations, the substantial literature relating to culturally adapted treatments for other groups, suggest that culturally responsive evidence-based treatment would lead to positive outcomes. Until randomized clinical trials are conducted, clinicians are forced to rely on the literature as it currently exists. However, it is unknown to what extent the clinical recommendations for TGD adults in the existing literature are based on empirical evidence.

Objectives

Despite gold-standard treatments not having been tested with TGD samples in RCTs, the attention to TGD affirming psychotherapy and high need of mental health services for TGD people highlights the need to understand what evidence-based guidance, if any, is available in the literature. The purpose of this systematic review is to identify the type and purpose of peer-reviewed literature available to guide clinicians working with TGD individuals and to evaluate the reliance on key aspects of evidence-based practice including empirical research, clinical judgement, client characteristics and preferences, and use of objective assessment to guide clinical decision making. Additionally, we identify what intersecting identities (e.g. sexual orientation, race, socioeconomic status) are a primary focus of articles in the existing literature. Our goal is not to provide a summary of what the recommendations and guidelines are for conducting clinical services with TGD clients, but rather describe the use of EBP and assessment as well as the type of articles clinicians may encounter when accessing literature. We sought to answer the following questions:

1. In contemporary clinical literature for working with TGD adults, what are the common types of articles offering recommendations and what fields are represented?
2. To what extent does the clinical literature rely on each of the aspects of EBP described above – empirical research, clinical judgement, and client characteristics? To what extent are validated objective assessment tools employed?
3. What specific problems, populations, and intersecting identities does the literature address?

Method

The review method was designed according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Guidelines (Shamseer et al., 2015).

Information Sources and Search Strategy

Systematic searches were completed in PsycInfo and Medline using the following search term: “Recommendations OR guidelines OR principles OR case studies OR evidence-based OR case examples OR competencies” AND “psychological practice OR therapy OR mental health OR behavioral health OR counseling OR social work OR psychotherapy” AND “gender variant OR gender minority OR transgender OR gender diverse OR nonbinary OR non-binary OR gender nonconforming OR gender non-conforming OR transsexual.” Searches were restricted to peer-reviewed articles and publication dates between January 1, 2008 and December 31, 2018 to reflect literature published in the same timeframe as the current SOC. The search terms yielded 573 results in PsycInfo and 1,053 results in Medline when conducted in early 2019. Following removal of duplicates, 1,494 articles were considered for inclusion.

Eligibility Criteria

To be included in the review, articles were required to be published in English in a peer-reviewed journal between January 1, 2008 and December 31, 2018. Additional inclusion criteria were that the article be focused on therapy, psychological practice, assessment, or mental health services with transgender or gender diverse adults in the form of summary articles, recommendations, guidelines, principles, case studies, or competencies or an empirical research/quasi-experimental design article with the purpose of informing recommendations for therapy with TGD adults. Exclusion criteria included: 1) focused on TGD children or adolescents; 2) broadly related to LGBT issues with limited focus on specific recommendations for working with TGD individuals (e.g. referred broadly to “LGBT” but all examples reference sexual orientation) or few TGD participants in sample of an empirical study (less than 25% of the study sample); 3) focused on non-TGD partners or family members; 4) focused on provider education or training without recommendations on the provision of therapy (e.g. made recommendations for improving TGD-focused curriculum for mental health trainees, but did not expand to therapy recommendations); 5) primarily related to medical components of gender affirmation with limited mention of role of mental health provider (e.g. state that a letter of support is needed from a mental health provider, but do not provide guidance on the assessment or writing of such a letter).

Study Selection

The 1,494 articles identified in the searches were considered for inclusion in an iterative process completed by the co-first authors. First, records were screened for inclusion based on title and abstract. Articles were screened out if they did not indicate recommendations or a focus on therapy with TGD adults or were unrelated to mental health. Approximately one-third of the sample was reviewed by both co-first authors for inclusion. Interrater agreement was good (Cohen’s $\kappa = 0.77$). Any disagreements in the subset that was reviewed by both authors were resolved. One hundred and sixty-seven articles remained for potential inclusion in the sample. At this time, each remaining article was read in its entirety for final consideration of inclusion. Again, approximately one-third of this subset of articles were reviewed by both co-first authors for inclusion. Interrater agreement at this stage was good (Cohen’s $\kappa = 0.71$). The remaining articles were reviewed by one of the co-first authors and

any discrepancies were resolved. The final sample for inclusion in the review consisted of 65 articles. Figure 1 provides further detail of this process including reasons articles were excluded in the last stage of study selection.

Data Categories and Extraction

Each article included in the sample was reviewed by both co-first authors to extract data categories and complete the review coding categories.[1] The authors, title, journal, year of publication, primary field and country of origin of first author, whether the article was written by a multidisciplinary team, and primary target population (e.g. specific subgroups of TGD populations) were recorded for each article.[2] Discrepancies were reconciled by both co-first authors with thorough discussion and joint review of the target article. All discrepancies were resolved.

Type of Article—The type of article was determined as one of the following: summarized recommendations, case study, review of an area/topic, or empirical research/study. Summarized recommendations covered a broad span of components for therapy with TGD individuals within the single article. A case study presented one or more detailed descriptions of the therapeutic process with a TGD client. Some articles coded within the other categories may have included a brief case example to illustrate the recommendations. Review of an area/topic involved an in-depth discussion of a particular therapeutic or diagnostic topic such as substance use or trauma. Empirical research/studies used quantitative, qualitative, or mixed methods to answer a specific research question. These categories were generated by the co-first authors following the final sample selection.

Purpose of the Article—Each article was coded as primarily addressing one of the following: *transtheoretical factors/common factors, affirming adaptations of a theoretical orientation, or specific problems*. An article deemed *transtheoretical factors/common factors* would offer recommendations intended to benefit clinicians across a span of theoretical orientations. *Affirming adaptations of a theoretical orientation* offered recommendations or examples of applying a specific therapeutic approach, such as cognitive-behavioral therapy, with TGD clients. *Specific problems* served to address how a disorder or psychological issue impacts TGD adults, such as case studies of TGD adults with autism spectrum disorders. For articles coded as *affirming adaptations*, the specific theoretical orientation was also recorded.

Gender Dysphoria and Medical Gender Affirmation—Each article was coded "yes" or "no" to indicate if it had a focus on either gender dysphoria or the mental health provider's role in facilitating medical gender affirmation. Cohen's κ for the gender dysphoria category was 0.69 and 0.62 for medical gender affirmation indicating moderate agreement. Discrepancies were resolved between the raters.

[1]The 2 articles included in the final sample that were authored by one of the co-first authors was coded by the unaffiliated individual.
[2]Each article was also coded "yes" or "no" to indicate the use of affirming and non-stigmatizing language related to TGD identities and topics. The vast majority (89%) of the articles used affirming language. Given the low variability in this variable, it was dropped from this report.

Use of EBP—Despite an exhaustive literature search, no existing EBP quality coding scheme was identified. As such, a coding manual (see Table 1) for the EBP categories was developed by the co-first authors and the 5th author, a licensed clinical psychologist with expert knowledge in the implementation of EBP. Articles were assigned 4 individual scores (between 0 and 3) that, given the importance of integration of EBP components, were summed for a total EBP score with a possible range of 0 to 12. The individual scores were overall ratings of the article's attention to 1) patient characteristics; 2) clinical judgment; 3) research evidence; and 4) objective assessment. The absolute difference for both rater's scores were calculated and were determined a "match" if the difference was 1 or less. In this instance, the final score used in data analyses was the average of the two rater's scores. Any differences of 2 or greater were reconciled and assigned a final score by the co-first authors.

Demographics—For all articles classified as case studies, the demographics of the case individual were recorded. For empirical studies, the participants' gender identities, sexual orientation, and racial and ethnic identities were recorded, if provided. See Table 2.

Data analysis

Descriptive statistics were conducted to describe the frequencies author's fields, publication years, types of articles, purpose of articles, prevalence of articles focused on gender dysphoria and medical transition, presence of affirming language, and the EBP scores. A between-group ANOVA was conducted to examine mean differences in EBP scores between article types. A chi-square analysis was used to identify patterns of the types of articles published by authors in different fields.

Results

A complete list of the included articles, including detailed information about each article can be found in Table 2. See Table 3 for the descriptive statistics for coding categories.

Year, Type of Article, and Author Characteristics

Article dates ranged from 2008-2018, with the lowest number (n = 2, 3.1%) of articles published in 2008 and the highest number of articles (n = 17, 26.2%) published in 2017. Despite the trend of an increase in number of articles published between 2008 and 2017, 2018 only saw 3 (4.6%) articles published that met inclusion criteria.

Coders categorized each article as either empirical research/study, case study, summarized recommendations, or review of an area/topic. While many of the studies could theoretically fit into more than one category, categories were chosen based on the purpose of the article and the amount of space devoted to primary category. As shown in Table 2, 6 (9.2%) of the article were empirical reviews/studies, 26 (40.0%) were case studies, 21 (32.3%) were summarized recommendations, and 12 (18.5%) were reviews of an area or topic.

The primary field of the first author was recorded for each article. The majority of first authors' field were either counseling (n = 21, 32.3%) or clinical (n = 20, 30.8%) psychology. The remaining authors' primary fields included social work (n = 9, 13.8%), marriage and family therapy (n = 2, 3.1%), psychiatry (n = 5, 7.7%), and other (e.g. gerontology, health

care ethics, etc.; *n* = 8, 12.3%). Fifty-two (80.0%) of articles had multiple authors and 25 (48.1%) of those articles had multidisciplinary author teams. Most of the articles' first author held a position in the United States (*n* = 52, 80%), with the remainder of the first authors' holding positions in Canada (*n* = 7, 10.8%), and other countries (Brazil, Netherlands, India, Australia, Sweden, New Zealand; *n* = 6, 9.2%).

Purpose, Target Population, and Topic of Article

Transtheoretical factors, meaning recommendations spanning theoretical orientations, was the primary purpose of most articles (*n* = 41, 63.1%). Affirming adaptations of theoretical orientations (*n* = 11, 16.9%) and specific problems (*n* = 13, 20%) saw similar rates of occurrence. Information regarding what theoretical orientations and specific problems were addressed in the articles is available in Table 2.

Approximately half (*n* = 31, 47.69%) of articles target population was TGD adults broadly. Articles focused on TGD adults with specific demographic characteristics (e.g. older adults, rural, urban, etc.) and "other" (e.g. undergoing medical transition, career counseling, etc.) both represented 10 (15.38%) articles each. The remaining articles focused on treating specific problems with TGD adults (e.g. substance use, serious mental illness, autism, etc.; *n* = 9, 13.85%), couple and family issues (*n* = 3, 4.61%), and LGBT adults broadly (*n* = 2, 3.08%). Most of the articles did not focus on gender dysphoria (*n* = 56, 86.2%) or medical gender affirmation (*n* = 56, 86.2%).

EBP Categories

Overall Scores—Means and standard deviations of EBP categories are available in Table 4. One-sample t-tests were used to compare means among the four EBP categories. Mean patient characteristics scores were significantly lower than clinical judgment scores, $t(64) = -2.782$, $p = .007$, and significantly higher than mean objective assessment scores, $t(64) = 5.573$, $p < .001$. There was not a significant difference between mean patient characteristics scores and mean research evidence scores, $t(64) = -1.439$, $p = .155$. Mean clinical judgment scores were higher than mean assessment scores, $t(64) = 8.622$, $p < .001$. However, there was not a significant difference between mean clinical judgment scores and mean research evidence scores, $t(64) = 1.036$, $p = .304$. Finally, research evidence mean scores were higher than mean assessment scores, $t(64) = 8.816$, $p < .001$.

Differences across Article Type and Author Field—We examined potential relationships in EBP scores across year and potential differences between types of article, as well as primary fields of the first author. There was no correlational relationship between year and total EBP score nor between year and any of the individual EBP scores (*p*s > 0.05).

Article Type.: There was not a significant difference on total EBP score between different article types. There were no significant mean difference scores of clinical judgment $F(3, 61) = 2.39$, $MSE = 0.93$, $p = .077$, and assessment $F(3, 61) = 1.83$, $MSE = 0.49$, $p = .15$, between different article types. However, there were significant mean differences on scores of patient characteristics $F(3, 61) = 5.19$, $MSE = 3.33$, $p = .003$ and research evidence $F(3, 61) = 3.584$, $MSE = 2.05$, $p = .019$. For case studies, mean scores for

patient characteristics (M = 2.19, SD = .68) were significantly higher than mean scores for summarized recommendations (M = 1.40, SD = .94, p = .001) and empirical research/studies (M = 1.25, SD = .88, p = .012). Similarly, mean scores on patient characteristics (M = 2.08, SD = .73) for reviews of an area or topic were significantly higher than mean scores for summarized recommendations (M = 1.40, SD = .94, p = .023) and empirical research/studies (M = 1.25, SD = .88, p = .042). Finally, empirical research/studies (M = 2.51, SD = .84, p = .019), summarized recommendations (M = 2.17, SD = .62, p = .030), and reviews of an area or topic (M = 2.33, SD = .58, p = .015) all evidenced significantly greater mean scores on research evidence than case studies (M = 1.67, SD = .89) but did not differ from each other.

Author Field.: When examining differences in mean scores on EBP ratings between fields we only included clinical and counseling psychology and social work in the analyses due to the low sample size of other fields. There were no significant differences on mean scores between fields on clinical judgment, $F(2, 47) = 1.66$, MSE = .76, p = .202, patient characteristics, $F(2, 47) = .33$, MSE = .27, p = .720, or assessment, $F(2, 47) = .75$, MSE = .78, p = .476. However, there were significant differences on mean scores between fields on total EBP, $F(2, 47) = 3.84$, MSE = 13.44, p = .029, and research evidence, $F(2, 47)$ = 3.80, MSE = 2.01, p = .029. Specifically, clinical psychology evidenced higher scores on total EBP (M = 8.05, SD = 1.77) than both counseling psychology (M = 6.83, SD = 1.87, p = .043) and social work (M = 6.17, SD = 2.09, p = .016). Similarly, clinical psychology demonstrated higher scores on research evidence than both counseling psychology (p = .044) and social work (p = .017).

Discussion

This is the first study to evaluate the current state of the literature for evidence-based recommendations and guidelines for psychological services for TGD adults. We specifically set out to answer what are the common types of articles offering recommendations and what fields are represented. Secondly, we examined the extent to which the clinical literature relied on each aspect of EBP (empirical research, clinical judgement, client characteristics and preferences) and objective assessment to guide clinical decision making. Third, in order to understand the relevance to various TGD communities, we explored what specific problems, populations, and intersecting identities the literature addresses. In the absence of RCT's, the overall goal was to highlight published material a provider working from evidence-based practice perspective might access to inform their care.

Clinical and counseling psychologists working in the U.S. were the primary producers of the TGD literature in our review. This was consistent with findings from Moradi and colleagues' (2016) content analysis of 960 publications focused on transgender people who found 81.9% of the publications were published within the field of psychology. Also similar to their findings, most of the articles we included were not empirical research/studies (89.2%), though our number was much higher than their 54% given our requirement that papers include clinical recommendations. A vast majority of the articles we included were case studies and summarized recommendations, underscoring the need for more attention on empirically testing culturally responsive adaptations of gold-standard treatments for common presenting problems.

Evidence Based Practice

Of primary interest in this study was assessing the strength of evidence-based practice in the existing literature of recommendations and guidelines for working with TGD communities. Each article was assessed based on the three components of evidence-based practice (research evidence, clinical judgment, and consideration of patient characteristics), and objective assessment. These scores were then combined for an overall total evidence-based practiced score to capture the importance of integration of all aspects of EBP in the APA (2006) model. The overall score on EBP was at the midpoint suggesting there is room for improvement in meeting standards for evidence-based practice. Among individual sub-scores, patient characteristics and assessment means were the lowest. It is perhaps not surprising that the assessment category was especially low given the lack of assessment measures specifically created for TGD people and the unavailability of validation studies with TGD people of general measures of various psychological constructs (Shulman et al., 2017). When assessment was discussed, it was typically in the context of measuring gender dysphoria, most often for use in writing letters for gender affirming medical care.

All of the articles reviewed discussed the importance of considering gender identity in working with TGD communities, but the low patient characteristic ratings revealed surprisingly infrequent consideration of other aspects of identity such as race/ethnicity, socioeconomic status, area of residence, family dynamics, etc. as noted in Table 2. In the articles in which this intersectionality was mentioned, few authors provided specific recommendations about how to incorporate intersecting identities into clinical services.

Average scores on clinical judgement were higher than patient characteristics and assessment, suggesting when working with TGD communities, clinician's may rely heavily on their own expertise. Such an approach may be driven by necessity, given the limited empirical literature. Clinicians' expertise may be derived from their own experiences with TGD clients as well as continuing education training as few have had formal graduate training or supervision (American Psychological Association, 2009; Holt et al., 2020). Unfortunately, clinical judgment is plagued by well-established biases (Spring, 2007) and must be appropriately supported by the other domains of EBP including objective assessment. Several reviews (Blumer et al., 2012; Moradi et al., 2016; Singh & Shelton, 2011) demonstrate that while the psychological literature with TGD individuals is nascent, it has been growing. Our coding scheme for research evidence credited articles that drew from this literature as well as empirical literature without a TGD focus (e.g. research with LGBT individuals broadly or research supporting the efficacy of a particular treatment). Given this broad definition and growing TGD literature, it was surprising the use of empirical research was not more common and did not increase over time. However, there are potential barriers to building robust research evidence. For example, limited funding has been available for LGBT health research broadly and the portion of this funding directed to TGD research has been miniscule (Coulter et al., 2014). This means that less research requiring funding, such as randomized controlled trials, are conducted with TGD populations or findings are subsumed within the LGB-focused literature. Additionally, historical marginalization of TGD communities within psychology, such as misusing research findings or perpetuating gatekeeping practices that delay access to medical care,

may contribute to mistrust and reluctance from TGD individuals to engage in research (American Psychological Association, 2015). As the body of empirical research grows, hopefully clinical recommendations will incorporate a more balanced EBP model that relies on integrated clinical judgement, empirical research, and client characteristics and preferences.

Case studies and reviews of topic areas offered the most information on the patient characteristic aspect of EBP including intersectionality of multiple identities. To some extent describing unique cases in their individual cultural context is an important contribution of case studies. Unfortunately, these case studies were less grounded in research evidence than other types of papers.

Topics Addressed

The majority of the articles were applicable to a broad range of mental health providers. Although some focused on a particular theoretical orientation, most addressed TGD-affirming practices more broadly. The growing number of papers on specific sub-populations defined by demographic variables (e.g. TGD older adults), treatment setting, or presenting problem adds depth to the literature that many providers may find useful. Only a minority of the articles focused on gender dysphoria or medical gender affirmation, though this may be an artifact of the inclusion criteria. Nevertheless, the emerging focus on clinical issues beyond the treatment of gender dysphoria or navigating gender-specific stressors is promising.

Limitations

A few limitations of the present study should be noted. First, our sample only considered articles published in English which narrowed focus mostly to the U.S. and Canada, limiting the number of international articles and impacting generalizability. We also were limited to articles that were produced by our a priori search criteria, and there may be valuable articles not identified. Additionally, no standard EBP coding scheme could be identified in previous literature leading to the author-created coding scheme. While the coding was reliable and was based closely on the APA model of EBP (American Psychological Association, 2006), such coding approaches have subjective elements by nature. For example, we cannot capture how the prioritized audience and scope of an article may lead authors to emphasize one component of EBP and not as thoroughly address the others. Another limitation of the present study is that articles published outside of 2008 and 2018 were not included, and as such, there may be articles that address some weaknesses the current sample demonstrated in utilizing EBP. There also was a substantial lack of empirical studies in our sample as we excluded papers without specific clinical recommendations. Excluded empirical studies that focus on resilience, coping, or psychopathology in TGD samples may have clinical value, but these are most accessible to clinicians if recommendations are explicit. This study investigated published clinical recommendations for behavioral health care, not gender affirming medical procedures. There is substantial evidence that access to affirmative medical care is associated with positive psychosocial outcomes (e.g., Butler et al., 2019; Turban et al., 2020). This paper does not address care specifically for gender affirmation nor should it be used to draw any conclusions about behavioral health care in the context of

gender affirmation services. Finally, a number of statistical tests were conducted and as such the significance of some tests may be due to chance.

Conclusions and Recommendations for Future Directions

This systematic review revealed a growing literature on TGD affirmative psychological services. Formats range from case studies, to topical reviews, summarized recommendations, and clinical implications noted in empirical studies. Most papers have broad application, but specialized topics across settings and TGD subpopulations are increasingly available. On the other hand, the 3-legged stool of evidence-based practice (Spring, 2007) is wobbly at best. Given that research largely ignore TGD people for many years, it was by necessity that published clinical recommendations for behavioral health services were based largely on clinicians' experience and judgement. Even now, much of the material a clinician might access is based more on clinical judgment than other components of EBP. This does not imply that such recommendations and interventions are ineffective, the opposite may well be true as they are grounded in lessons learned from clinical practice. However, as the empirical literature is growing, state-of-the-art behavioral health care should include more attention to relevant research. Also, patient characteristics are well-represented in terms of the TGD identities, but less so for variation within gender or other demographic characteristics.

In order to achieve a better balance within the EBP model, we must address the limited integration of psychological interventions that are well established with presumably cisgender samples in recommendations for TGD care. An example of such an integration would be Shipherd and colleagues' chapter on trauma treatment with TGD adults (Shipherd et al., 2019). Research is needed to adapt these gold standard treatments to be culturally responsive for TGD communities in a manner that accounts for the comorbid marginalization stress many TGD people experience and variety of diagnostic presentations, such as prioritizing transdiagnostic treatments or process-based CBT. The efficacy of these treatments with TGD clients should be tested in single case studies and open trials and then expanded to clinical trial designs that can accommodate this heterogeneity. Pachankis (2014) provides an exemplar adaptation process of ESTEEM, an empirically supported treatment for gay and bisexual men stemming from the Unified Protocol (UP; Barlow et al., 2010). Several expert mental health providers and gay and bisexual men participated in interviews that informed selection of the UP as the established, empirically supported treatment to adapt and then further stakeholders participated in interviews to discuss specific techniques within the UP and minority stress processes that required culturally-responsive attention. These interviews informed development of a draft treatment manual and then additional expert clinicians and gay and bisexual men offered feedback on the manual. The revised treatment manual was utilized in a randomized controlled waitlist trial (Pachankis et al., 2015). The detailed adaptation process incorporates all components of evidence-based practice as the strong research base for the UP and minority stress processes served as a basis for treatment that was then adapted based on unique patient characteristics of gay and bisexual men and the clinical judgment of expert mental health providers. Achieving similar culturally-humble adaptations or creation of psychological treatments is necessary to meet the needs of TGD populations. In our own work, we have formed a community-

academic partnership with TGD communities in underserved locales, Trans Collaborations (Hope et al., 2020), and conducted interviews and focus groups with TGD individuals and mental health providers identified by TGD community members as affirming (e.g. Holt et al. 2020; Meyer et al., 2019) to inform development of adaptations for TGD-affirming psychological interventions. We have applied these adaptations to transdiagnostic treatment with individual TGD clients and are working towards validation in larger trials. The robust research evidence for treatment adaptations like ESTEEM (Pachankis et al., 2015) is needed to support evidence-based psychological services for TGD individuals and demands an increase in availability of extramural funding to support such research endeavors.

As the TGD literature grows, we offer the following recommendations to improve the quality and availability of evidence-based behavioral health services for TGD adults. First, we encourage researchers to include gender identity demographic data to better be able to compare studies in the future. Second, authors should rely on empirical evidence whenever possible to demonstrate effectiveness and appropriateness of the suggested techniques. When specific research with TGD samples is lacking, authors should consider whether data from other marginalized groups could be informative, with appropriate caveats. Third, when writing guidelines and recommendations authors should ensure they are considering and incorporating other aspects of TGD people's identities when recommending specific techniques/orientations/etc. Finally, the literature would benefit from attempts to validate current gold-standard assessments tools with TGD communities and continued efforts to create measures that are relevant to the lived experiences of TGD communities.

The wisdom of experienced clinicians who have been serving TGD communities in an affirmative manner for many years is not to be discounted or discarded. Given the known limitations of relying exclusively on clinical judgment, it is encouraging that accumulating research can add to clinical judgement. Incorporating empirical evidence and using validated affirmative objective assessment tools to aid treatment decision-making will move towards best practices and more consistency with the EBP model. Especially given the history of marginalization of TGD people by the mental health care systems, it is especially urgent to bring the best evidence-based care to these communities.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

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References

American Counseling Association Competencies for Counseling with Transgender Clients. (2010). Journal of LGBT Issues in Counseling, 4(3–4), 135–159. 10.1080/15538605.2010.524839

American Psychological Association. (2006). Evidence-based practice in psychology. American Psychologist, 61(4), 271–285. 10.1037/0003-066X.61.4.271 [PubMed: 16719673]

American Psychological Association. (2015). Guidelines for psychological practice with transgender and gender nonconforming people. American Psychologist, 70, 832–864. 10.1037/a0039906 [PubMed: 26653312]

American Psychological Association Task Force on Gender Identity and Gender Variance. (2009). Report of the task force on gender identity and gender variance. Washingtong, DC: Author. Retrieved from https://www.apa.org/pi/lgbt/resources/policy/gender-identity-report.pdf

Barlow DH, Ellard KK, Fairholme CP, Farchione TJ, Boisseau CL, May JTE, & Allen LB (2010). Unified Protocol for Transdiagnostic Treatment of Emotional Disorders: Workbook. Oxford University Press.

Benson KE (2013). Seeking Support: Transgender Client Experiences with Mental Health Services. Journal of Feminist Family Therapy, 25(1), 17–40. 10.1080/08952833.2013.755081

Bith-Melander P, Sheoran B, Sheth L, Bermudez C, Drone J, Wood W, & Schroeder K (2010). Understanding sociocultural and psychological factors affecting transgender people of color in San Francisco. Journal of the Association of Nurses in AIDS Care, 21, 207–220. 10.1016/j.jana.2010.01.008

Blumer MLC, Green MS, Knowles SJ, & Williams A (2012). Shedding Light on Thirteen Years of Darkness: Content Analysis of Articles Pertaining to Transgender Issues In Marriage/Couple and Family Therapy Journals. Journal of Marital and Family Therapy, 38, 244–256. 10.1111/j.1752-0606.2012.00317.x [PubMed: 22765337]

Boroughs MS, Bedoya CA, O'Cleirigh C, & Safren SA (2015). Toward Defining, Measuring, and Evaluating LGBT Cultural Competence for Psychologists. Clinical Psychology: Science and Practice, 22(2), 151–171. 10.1111/cpsp.12098 [PubMed: 26279609]

Christon LM, McLeod BD, & Jensen-Doss A (2015). Evidence-Based Assessment Meets Evidence-Based Treatment: An Approach to Science-Informed Case Conceptualization. Cognitive and Behavioral Practice, 22(1), 36–48. 10.1016/j.cbpra.2013.12.004

Coleman E, Bockting W, Botzer M, Cohen-Kettenis P, DeCuypere G, Feldman J, Fraser L, Green J, Knudson G, Meyer WJ, Monstrey S, Adler RK, Brown GR, Devor AH, Ehrbar R, Ettner R, Eyler E, Garofalo R, Karasic DH, … Zucker K (2012). Standards of Care for the Health of Transsexual, Transgender, and Gender-Nonconforming People, Version 7. International Journal of Transgenderism, 13(4), 165–232. 10.1080/15532739.2011.700873

Coulter RW, Kenst KS, & Bowen DJ (2014). Research funded by the National Institutes of Health on the health of lesbian, gay, bisexual, and transgender populations. American Journal of Public Health, 104(2), e105–e112. [PubMed: 24328665]

Cuijpers P, Sijbrandij M, Koole S, Huibers M, Berking M, & Andersson G (2014). Psychological treatment of generalized anxiety disorder: A meta-analysis. Clinical Psychology Review, 34(2), 130–140. 10.1016/j.cpr.2014.01.002 [PubMed: 24487344]

dickey lore m., & Singh AA (2016). Training tomorrow's affirmative psychologists: Serving transgender and gender nonconforming people. Psychology of Sexual Orientation and Gender Diversity, 3(2), 137–139. 10.1037/sgd0000175

Grant JM, Mottet L, Tanis JE, Herman J, Harrison J, & Keisling M (2010). National transgender discrimination survey report on health and health care: Findings of a study by the National Center for Transgender Equality and the National Gay and Lesbian Task Force. National Center for Transgender Equality.

Green J, McGowan S, Levi J, Wallbank R, & Whittle S (2011). Recommendations from the WPATH Consensus Process for Revision of the DSM Diagnosis of Gender Identity Disorders: Implications for Human Rights. International Journal of Transgenderism, 13(1), 1–4. 10.1080/15532739.2011.606193

Heck NC, Mirabito LA, LeMaire K, Livingston NA, & Flentje A (2017). Omitted data in randomized controlled trials for anxiety and depression: A systematic review of the inclusion of sexual orientation and gender identity. Journal of Consulting and Clinical Psychology, 85(1), 72–76. 10.1037/ccp0000123 [PubMed: 27845517]

Hendricks ML, & Testa RJ (2012). A conceptual framework for clinical work with transgender and gender nonconforming clients: An adaptation of the Minority Stress Model. Professional Psychology: Research and Practice, 43(5), 460–467. 10.1037/a0029597

Holt NR, Hope DA, Mocarski R, Meyer H, King R, & Woodruff N (2020). The provider perspective on behavioral health care for transgender and gender nonconforming individuals in the Central Great Plains: A qualitative study of approaches and needs. American Journal of Orthopsychiatry, 90(1), 136–146. 10.1037/ort0000406 [PubMed: 30920242]

Hope DA, Woodruff N, Mocarski R (2020). Advocacy opportunities from academic-community partnerships: Three examples from Trans Collaborations. The Behavior Therapist, 43, 247–249.

James SE, Herman JL, Rankin S, Keisling M, Mottet L, & Anafi M (n.d.). The Report of the 2015 U.S. Transgender Survey. National Center for Transgender Equality. Retrieved October 29, 2019, from https://www.transequality.org/sites/default/files/docs/USTS-Full-Report-FINAL.PDF

Kalibatseva Z, & Leong FTL (2014). A critical review of culturally sensitive treatments for depression: Recommendations for intervention and research. Psychological Services, 11(4), 433–450. 10.1037/a0036047 [PubMed: 25383996]

Kattari SK, Bakko M, Hecht HK, & Kattari L (2020). Correlations between healthcare provider interactions and mental health among transgender and nonbinary adults. SSM - Population Health, 10, 100525. 10.1016/j.ssmph.2019.100525 [PubMed: 31872041]

Kattari SK, Walls NE, Whitfield DL, & Langenderfer-Magruder L (2015). Racial and ethnic differences in experiences of discrimination in accessing health services among transgender people in the United States. International Journal of Transgenderism, 16, 68–79. 10.1080/15532739.2015.1064336

Leong FT, & Lee S-H (2006). A cultural accommodation model for cross-cultural psychotherapy: Illustrated with the case of Asian Americans. Psychotherapy: Theory, Research, Practice, Training, 43(4), 410–423. 10.1037/0033-3204.43.4.410

Lev AI (2009). The ten tasks of the mental health provider: Recommendation for revision of the World Professional Association for Transgender Health's Standards of Care. International Journal of Transgenderism, 11(2), 74–99. 10.1080/15532730903008032

Levant RF (2005). Report of the 2005 presidential task force on evidence-based practice. American Psychological Association.

McCann E, & Brown M (2018). Vulnerability and Psychosocial Risk Factors Regarding People who Identify as Transgender. A Systematic Review of the Research Evidence. Issues in Mental Health Nursing, 39(1), 3–15. 10.1080/01612840.2017.1382623 [PubMed: 29286841]

Meyer HM, Mocarski R, Holt NR, Hope DA, King RE, & Woodruff N (2020). Unmet expectations in health care settings: Experiences of transgender and gender diverse adults in the Central Great Plains. Qualitative Health Research, 30, 409–422. 10.1177/1049732319860265 [PubMed: 31328642]

Meyer IH (2003). Prejudice, Social Stress, and Mental Health in Lesbian, Gay, and Bisexual Populations: Conceptual Issues and Research Evidence. Psychological Bulletin, 129(5), 674–697. 10.1037/0033-2909.129.5.674 [PubMed: 12956539]

Mizock L, & Lundquist C (2016). Missteps in psychotherapy with transgender clients: Promoting gender sensitivity in counseling and psychological practice. Psychology of Sexual Orientation and Gender Diversity, 3(2), 148–155. 10.1037/sgd0000177

Moradi B, Tebbe EA, Brewster ME, Budge SL, Lenzen A, Ege E, Schuch E, Arango S, Angelone N, Mender E, Hiner DL, Huscher K, Painter J, & Flores MJ (2016). A Content Analysis of Literature on Trans People and Issues: 2002–2012. The Counseling Psychologist, 44(7), 960–995. 10.1177/0011000015609044

Pachankis JE (2014). Uncovering clinical principles and techniques to address minority stress, mental health, and related health risks among gay and bisexual men. Clinical Psychology: Science and Practice, 21(4), 313–330. 10.1111/cpsp.12078 [PubMed: 25554721]

Pachankis JE, Hatzenbuehler ML, Rendina HJ, Safren SA, & Parsons JT (2015). LGB-Affirmative Cognitive-Behavioral Therapy for Young Adult Gay and Bisexual Men: A Randomized Controlled Trial of a Transdiagnostic Minority Stress Approach. Journal of Consulting and Clinical Psychology, 83(5), 875–889. 10.1037/ccp0000037 [PubMed: 26147563]

Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart LA, & the PRISMA-P Group. (2015). Preferred reporting items for systematic review and meta-analysis

protocols (PRISMA-P) 2015: Elaboration and explanation. BMJ, 349(jan02 1), g7647–g7647. 10.1136/bmj.g7647

Shipherd JC, Valentine SE, & Woulfe J (2019). Conceptualizing Trauma Responses Among Transgender and Gender Nonconforming Adults. In Pachankis JE & Safren SA (Eds.), An Evidence-Based Approach to Handbook of Evidence-Based Mental Health Practice with Sexual and Gender Minorities (pp. 268–290). Oxford University Press.

Shelton SA, & Lester AO (2020). A narrative exploration of the importance of intersectionality in a Black trans woman's mental health experiences. International Journal of Transgender Health. Advance online publication. 10.1080/26895269.2020.1838393

Shulman GP, Holt NR, Hope DA, Mocarski R, Eyer J, & Woodruff N (2017). A review of contemporary assessment tools for use with transgender and gender nonconforming adults. Psychology of Sexual Orientation and Gender Diversity, 4(3), 304–313. 10.1037/sgd0000233 [PubMed: 29201935]

Singh AA, & Shelton K (2011). A Content Analysis of LGBTQ Qualitative Research in Counseling: A Ten-Year Review. Journal of Counseling & Development, 89(2), 217–226. 10.1002/j.1556-6678.2011.tb00080.x

Spring B (2007). Evidence-based practice in clinical psychology: What it is, why it matters; what you need to know. Journal of Clinical Psychology, 63(7), 611–631. 10.1002/jclp.20373 [PubMed: 17551934]

Sue DW, Arredondo P, & McDavis RJ (1992). Multicultural Counseling Competencies and Standards: A Call to the Profession. Journal of Multicultural Counseling and Development, 20(2), 64–88. 10.1002/j.2161-1912.1992.tb00563.x

Toivonen KI, & Dobson KS (2017). Ethical issues in psychosocial assessment for sex reassignment surgery in Canada. Canadian Psychology/Psychologie Canadienne, 58(2), 178–186. 10.1037/cap0000087

Tucker RP, Testa RJ, Simpson TL, Shipherd JC, Blosnich JR, & Lehavot K (2018). Hormone therapy, gender affirmation surgery, and their association with recent suicidal ideation and depression symptoms in transgender veterans. Psychological Medicine, 48(14), 2329–2336. 10.1017/S0033291717003853 [PubMed: 29331161]

Valentine SE, & Shipherd JC (2018). A systematic review of social stress and mental health among transgender and gender non-conforming people in the United States. Clinical Psychology Review, 66, 24–38. 10.1016/j.cpr.2018.03.003 [PubMed: 29627104]

Public Health Significance Statement:

This study highlights the need for improved guidance for affirming behavioral healthcare with transgender and gender diverse adults that integrates all aspects of evidence-based care: clinical judgment, research evidence, and patient characteristics.

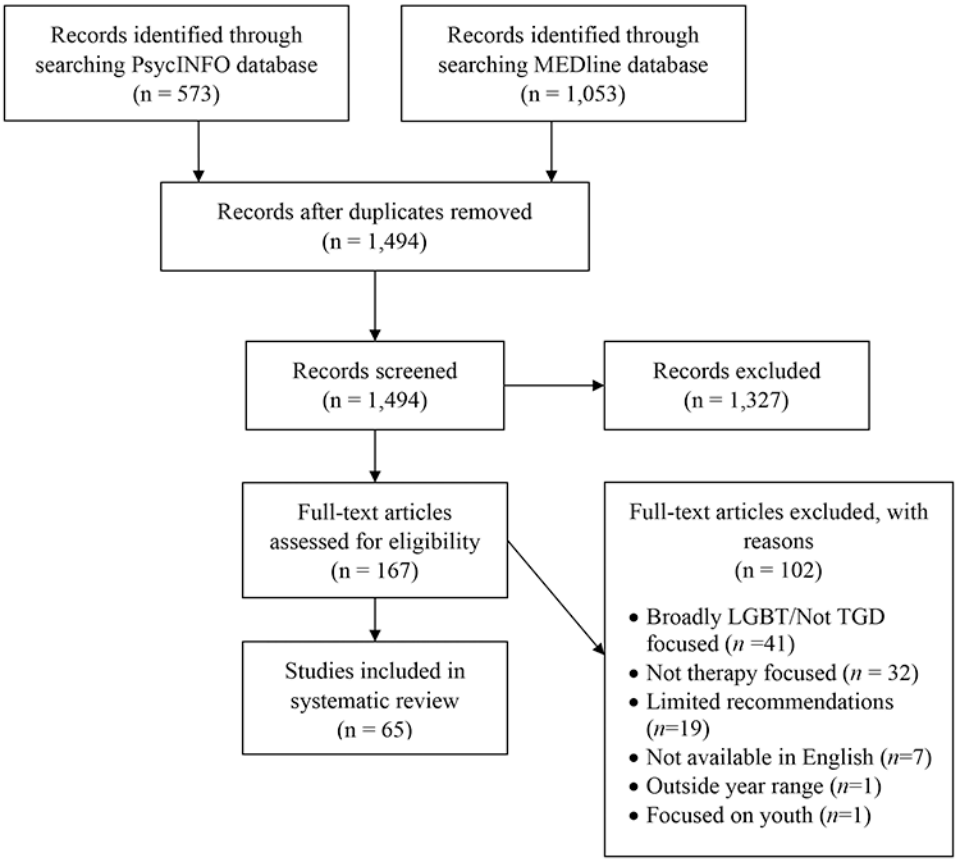

Figure 1.
Search and Inclusion Criteria

Table 1

Coding manual for EBP categories

Score	Patient Characteristics	Research Evidence	Clinical Judgment	Assessment
0	No mention of patient characteristics beyond gender identity	No mention of research evidence in clinical discussion	No mention of therapist judgment or expertise	No mention of assessment
1	Mentions at least one patient characteristic beyond gender identity	Cites little research, such as basis of theoretical orientation, but no discussion of clinical efficacy	Limited mention of therapist judgment or expertise, including therapist education	Briefly mentions inclusion of assessment tools or assessment for medical transition
2	Recommends adaptations based on two or more patient characteristics beyond gender identity	Recommends adaptations based on two or more patient characteristics beyond gender identity	Describes clinician's approach to therapy and previous experience/ education	Describes application of assessment tools with TGD clients or provides client outcomes
3	Integrates discussion of multiple patient characteristics and discusses intersections of identities and impact on treatment	Integrates theoretical and clinical efficacy data/obvious empirical grounding for clinical approach OR nuanced discussion of limited research evidence with TGD individuals but offers empirically-supported recommendations drawn from research with other populations	Discusses how clinician's previous experience and education guides treatment decisions with TGD clients	Discusses how specific clinical assessment guides treatment decisions

Table 2

Articles included in systematic review with key information

Author and Year of Publication	Type of Article	Purpose	Notes
American Psychological Association (2015)	Summarized recommendations	Transtheoretical factors	
Avera et al. (2015)	Case study	Affirming adaptations of theoretical orientations	Indivisible self-wellness model; 35-year old single Hispanic female-to-male (FTM) individual case example
Baltieri & Guerra de Andrade (2009)	Case study	Specific problems	Schizophrenia; Describes patient as 19-year old Black woman (individual assigned female at birth) case example
Barrett & Sheridan (2017)	Review of an area/topic	Specific problems	Partner violence
Bennett & Douglass (2013)	Case study	Affirming adaptations of theoretical orientations	Erickson's theory of development; 47-year old woman of transgender experience case example
Blake (2017)	Case study	Affirming adaptations of theoretical orientations	Transactional analysis; Heterosexual, "transgendered" woman case example
Budge (2013)	Case study	Affirming adaptations of theoretical orientations	Interpersonal therapy; 33-year old White, gay transgender man case example
Budge (2015)	Case study	Transtheoretical factors	18-year old queer Latina-Italian transgender woman case example
Budge & dickey (2017)	Review of an area/topic	Transtheoretical factors	
Burne et al. (2010)	Summarized recommendations	Transtheoretical factors	
Byne et al. (2012)	Summarized recommendations	Transtheoretical factors	
Carroll (2017)	Case study	Transtheoretical factors	TGD older adults; 58 year old trans woman assigned male at birth of mixed European heritage case example
Chang & Singh (2016)	Review of an area/topic	Transtheoretical factors	TGD people of color
Chapman & Caldwell (2012)	Review of an area/topic	Affirming adaptations of theoretical orientations	Couples with 1 TGD partner; emotionally-focused therapy for attachment injury
Chu et al. (2017)	Case study	Specific problems	Early 30s pansexual Japanese-American trans woman veteran experiencing suicidality case example
Collazo et al. (2013)	Summarized recommendations	Transtheoretical factors	
Dasgupta et al. (2012)	Case study	Affirming adaptations of theoretical orientations	Psychoanalytic assessment; 30-year-old Bengali "male transsexual" (individual assigned male at birth) case example
dickey & Loewy (2010)	Summarized recommendations	Transtheoretical factors	
dickey & Singh (2017a)	Summarized recommendations	Transtheoretical factors	
dickey & Singh (2017b)	Case study	Transtheoretical factors	TGD psychologists and trainees
Duffy et al. (2016)	Empirical research/study	Specific problems	Eating disorders; 84 TGD participants (57% nonbinary; 79.8% White)

Author and Year of Publication	Type of Article	Purpose	Notes
Elder (2016)	Empirical research/study	Transtheoretical factors	TGD older adult participants
Everett et al. (2013)	Case study	Transtheoretical factors	Male-identified informal leader in trans community and trans-identified counselor case example
Fraser (2009)	Case study	Transtheoretical factors	TGD adults receiving teletherapy; American transgender woman living in Saudi Arabia case example
Giammattei (2015)	Case study	Affirming adaptations of theoretical orientations	Couples with at least 1 TGD partner; family therapy; case examples of heterosexual White couple and young Native American Two-Spirit couple
Heck (2017)	Case study	Transtheoretical factors	Group therapy; late 30s middle class transgender man of Dutch and Irish ancestry and early 20s African American transgender woman of Jamaican and Cameroonian ancestry case examples
Heck et al. (2013)	Summarized recommendations	Transtheoretical factors	LGBT adults
Hope et al. (2016)	Summarized recommendations	Transtheoretical factors	
Jacobs et al. (2014)	Case study	Specific problems	TGD adults with autism spectrum disorders; 29 year old Caucasian assigned male at birth individual and an 18 year old first generation Chinese-American immigrant female identifying individual case examples
Koch & Knutson (2016)	Case study	Transtheoretical factors	TGD adults in rural areas; case examples of a heterosexual White transgender woman in her early 50s, lesbian transgender woman in her mid-40s, and a heterosexual 22-year-old Native American transgender man
Lennon & Mistler (2010)	Review of an area/topic	Transtheoretical factors	TGD college students
Lev (2009)	Summarized recommendations	Transtheoretical factors	
Mallory et al. (2017)	Case study	Transtheoretical factors	Transgender woman case example
Meijer et al. (2017)	Case study	Specific problems	TGD adults with psychosis; case examples of a 57-year-old Caucasian transgender woman, a 38-year-old Caucasian transgender man, a 56-year-old Caucasian transgender woman, and a 29-year-old Asian transgender man
Mizock & Fleming (2011)	Case study	Specific problems	TGD adults living with serious mental illness; case examples of a 34-year-old Latino American Catholic female-to-male transgender individual, a 21-year-old Caucasian American female-bodied individual, a 42-year-old male-bodied veteran, and a 60-year-old homeless birth female
Mizock & Hopwood (2018)	Empirical research/study	Specific problems	Addresses economic challenges for TGD adults; 3 TGD participants
Mizock & Lundquist (2016)	Empirical research/study	Transtheoretical factors	45 TGD participants (15.6% genderqueer or genderfluid; 75.6% White)
Moe et al. (2015)	Review of an area/topic	Transtheoretical factors	Addresses assessment with TGD adults
Neufeld (2014)	Case study	Affirming adaptations of theoretical orientations	Social justice informed therapy; 50-year-old First Nations transgender woman case example
Oberheim et al. (2017)	Summarized recommendations	Transtheoretical factors	Addresses assessment with TGD adults
Offman (2014)	Case study	Transtheoretical factors	Biracial transgendered male case example
O'Neil et al. (2008)	Summarized recommendations	Transtheoretical factors	TGD adults in career counseling

Clin Psychol (New York). Author manuscript; available in PMC 2022 June 01.

Author and Year of Publication	Type of Article	Purpose	Notes
Patton & Reicherzer (2010)	Case study	Affirming adaptations of theoretical orientations	Relational-cultural theory; transsexual woman of color case example
Pepper & Lorah (2008)	Summarized recommendations	Transtheoretical factors	TGD adults in career counseling
Perry et al. (2017)	Case study	Affirming adaptations of theoretical orientations	Cognitive behavioral therapy; 22-year-old transgender individual (assigned female at birth) in graduate school
Porch et al. (2014)	Case study	Transtheoretical factors	LGBT adults living in San Francisco; case examples of a 48-year-old female identified person from a Latin American country, a single, 55-year-old Caucasian bisexual female-identified transgender person, and a 23-year-old Indian-American queer-identified woman
Porter et al. (2016)	Summarized recommendations	Transtheoretical factors	TGD older adults; 68-year-old African American transgender woman case example
Puckett & Levitt (2015)	Summarized recommendations	Transtheoretical factors	LGBT adults
Pyne et al. (2015)	Empirical research/study	Transtheoretical factors	TGD parents
Rachlin & Lev (2011)	Case study	Transtheoretical factors	Case examples of a 42-year-old natal male of mixed European heritage and a 54-year-old German-American male-bodied and female identified individual
Rentmeester & Sallans (2015)	Summarized recommendations	Transtheoretical factors	
Richmond et al. (2012)	Review of an area/topic	Specific problems	Addresses trauma in TGD adults
Riley et al. (2011)	Summarized recommendations	Transtheoretical factors	Addresses needs of gender variant individuals
Senreich (2011)	Empirical research/study	Specific problems	TGD individuals in substance abuse treatment; 11 TGD participants
Selvaggi & Giordano (2014)	Summarized recommendations	Transtheoretical factors	
Shulman et al. (2017)	Review of an area/topic	Transtheoretical factors	Addresses assessment with TGD adults
Singh & Burnes (2010)	Summarized recommendations	Transtheoretical factors	
Singh & dickey (2016)	Summarized recommendations	Transtheoretical factors	
Spencer & Vencill (2017)	Review of an area/topic	Affirming adaptations of theoretical orientations	Gender affirming lifespan approach applied to transfeminine adults
Toivonen & Dobson (2017)	Review of an area/topic	Transtheoretical factors	TGD adults undergoing sex reassignment surgery
Trittschuch et al. (2018)	Summarized recommendations	Specific problems	Addresses neuropsychological assessment
Violeta & Langer (2017)	Case study	Specific problems	TGD adults with autism spectrum disorders; transgender woman case example
Walton & Baker (2017)	Review of an area/topic	Transtheoretical factors	TGD adults in in-patient mental health settings
Weir & Piquette (2018)	Summarized recommendations	Transtheoretical factors	
Wolf & Dew (2012)	Review of an area/topics	Specific problems	Addresses substance abuse in male-to-female transgender individuals

Note: Language in the “Notes” column matches terms used in the original article when available (e.g. Porch et al. describe one of their case examples as a “female identified transgender person” and Toivonen & Dobson refer to “sex reassignment surgery”). For case examples where an individual’s gender identity is unclear (e.g. article uses she/her/hers pronouns but does not report how the individual identifies), ‘transgender woman’ and ‘transgender man’ are used. Complete references for all articles included in the systematic review are available in supplemental materials.

Table 3

Descriptive Statistics for Article Coding Categories

	N	%
Multiple Authors		
Yes	52	20
No	13	80
Multidisciplinary Author Team		
Yes	25	38.5
No	40	61.5
Country of First Author		
USA	52	80
Canada	7	10.8
Other	6	9.2
Field of First Author		
Counseling Psychology	21	32.3
Clinical Psychology	20	30.8
Social Work	9	13.8
Marriage and Family Therapy	2	3.1
Psychiatry	5	7.7
Other	8	12.3
Article Type		
Empirical Research/Study	6	9.2
Case Study	26	40.0
Summarized Recommendations	21	32.3
Review of an Area/Topic	12	18.5
Article Purpose		
Transtheoretical factors	41	63.1
Affirming Adaptation	11	16.9
Specific Problems	13	20
Year		
2008	2	3.1
2009	3	4.6
2010	5	7.7
2011	4	6.2
2012	5	7.7
2013	5	7.7
2014	5	7.7
2015	8	12.3
2016	8	12.3
2017	17	26.2
2018	3	4.6
Focused on Gender Dysphoria		

	N	%
Yes	9	13.8
No	56	86.2
Focus on Medical Transition		
Yes	9	13.8
No	56	86.2
Use Affirming Language		
Yes	58	89.2
No	7	10.8

Table 4

Descriptive Statistics for EBP Categories

	N	Min.	Max.	*M*	*SD*
Patient Characteristics	65	0	3	1.83^{bd}	0.88
Clinical Judgment	65	0	3	2.17^{ad}	0.71
Research Evidence	65	0	3	2.03^{d}	0.80
Assessment	65	0	3	0.91^{abc}	1.00
EBP Total	65	2	11	6.94	2.03

Note. *M* = Mean. *SD* = standard deviation. Superscripts indicate pair-wise differences between categories with

a = significant (ps < .05) mean difference from patient characteristics

b = significant (ps < .05) mean difference from clinical judgment

c = significant ps < .05) mean difference from research evidence

d = significant ps < .05) mean difference from assessment.