Predisposing, reinforcing, and enabling factors of trans-positive clinical behavior change: A summary of the literature

Kinnon Ross MacKinnon, Lesley A. Tarasoff & Hannah Kia

To cite this article: Kinnon Ross MacKinnon, Lesley A. Tarasoff & Hannah Kia (2016): Predisposing, reinforcing, and enabling factors of trans-positive clinical behavior change: A summary of the literature, International Journal of Transgenderism

To link to this article: http://dx.doi.org/10.1080/15532739.2016.1179156

Published online: 07 Jun 2016.
Predisposing, reinforcing, and enabling factors of trans-positive clinical behavior change: A summary of the literature

Kinnon Ross MacKinnon, Lesley A. Tarasoff, and Hannah Kia

Dalla Lana School of Public Health, University of Toronto, Toronto, ON, Canada

ABSTRACT
Transgender, transsexual, and other gender minority (trans) populations experience numerous health disparities in comparison to cisgender (non-trans) groups. Many trans and gender nonconforming people report interactions with health care providers who lack knowledge about the client’s specific health care needs and in some cases discrimination from health care providers, which leads to health care avoidance behaviors and poor health outcomes. Trans-positive health care interventions are necessary in order to improve health care access and outcomes for this marginalized group. In this paper we (a) synthesize literature in the areas of trans-positive care and clinical behavior change according to predisposing, reinforcing, and enabling factors, factors to be addressed as a part of the Precede-Proceed model, a model to develop and evaluate behavior change interventions, and (b) discuss future directions for research and program development with the goal of improving access to competent and quality health care for trans populations.

KEYWORDS
Behavior change; health care providers; Precede-Proceed; transgender; trans-positive care

Transgender, transsexual, and other gender minority (trans) populations are arguably one of the most underserved populations in health care settings (Roberts & Fantz, 2014). This is troubling, as trans and gender nonconforming people (herein referred to interchangeably with “gender minorities”) experience many population-specific health concerns that require interventions from physical and mental health care providers (HCPs). For instance, compared to cisgender (non-trans) adults, trans people experience elevated rates of unemployment and poverty (Conron, Scott, Stowell, & Landers, 2012), increased substance-related issues (Keuroghlian, Reisner, White, & Weiss, 2015; Nuttbrock et al., 2014), low rates of cancer screening (Vogel, 2014), and greater risk of contracting HIV (Thornhill & Klein, 2010; Bauer, Travers, Scanlon, & Coleman, 2012). Poor mental health outcomes are also notably high among trans populations. A study conducted in the province of Ontario, Canada, found that 66.4% female-to-male individuals (n = 207) experience symptoms consistent with depression (Rotondi, Bauer, Travers, Scanlon, & Kaay, 2011a) and that the prevalence of depression in male-to-female persons (n = 191) is 61.2% (Rotondi et al., 2011b).

Although gender minorities experience poor health outcomes that warrant proactive medical attention, HCPs often fail to provide adequate care to this marginalized group. Trans people report interacting with HCPs who lack knowledge about trans health issues (Sanchez, Sanchez, & Danoff, 2009; Sperber, Landers, & Lawrence, 2005; Healthy People 2020, 2010). Thus, many trans people have to educate their HCPs about their health care needs (Bradford, Reisner, Honnold, & Xavier, 2013) and report experiences of discrimination from HCPs (Bauer, Scheim, Deutsch, & Massarella, 2014; Bradford, Reisner, Honnold, & Xavier, 2013; Shiperd, Green, & Abramovitz, 2010). Moreover, some trans people report instances of being denied care altogether (Grant et al., 2011). In the context of mental health, many gender minorities encounter clinicians who often conflate their mental health concerns with their gender identity (Bauer et al., 2009; Ellis, Bailey, & McNeil, 2015). These barriers to care may reinforce poor health outcomes among trans people, as necessary services may then be avoided (Bradford, Reisner, Honnold, & Xavier, 2013; Kosenko, Rintamaki, Raney, & Maness, 2013; Poteat, German, & Kerrigan, 2013). Further, some choose not to disclose their
trans identity and even avoid accessing care due to fear of interacting with discriminatory providers (Bauer, Scheim, Deutsch, & Massarella, 2014; Healthy People 2020, 2010). Thus, trans-positive clinical behavior-change interventions for HCPs are necessary as steps in preventing discrimination and stigma with regard to trans people and, ultimately, toward improving health care access and outcomes for this marginalized group (White Hughto, Reisner, & Pachankis, 2015).

**Trans-positive care**

There are limited empirical investigations that operationalize the concept “trans-positive care.” Raj (2002), for instance, explores three distinct trans-positive therapeutic modalities for use when supporting trans peoples’ loved ones in clinical settings. Collazo, Austin, and Craig (2013) add that trans-specific clinical knowledge and interventions are needed to mitigate the poor health outcomes experienced by this vulnerable population. Trans-positive care includes, most importantly, recognition of the profound effect that trans-related discrimination and victimization have on the health of trans people (Grant et al., 2010; Nuttbrock et al., 2010). Trans-positive care also entails rejecting the binary notion of only two sexes and implements a nonpathologizing clinical approach in which all gender identities are accepted (Austin & Craig, 2015). Acknowledging diverse gender identities is important to foreground the complex clinical needs of trans people that are not exclusively limited to the experience of medically transitioning from one sex to another. Hagen and Galupo (2014) refer to this as a “whole person” approach. Finally, trans-positive care may be seen as an important practice of preventative medicine in that HCPs who support gender minorities are likely to develop a clinical relationship of trust, rather than one of avoidance, which may lead to greater use of health care services and in turn improved health outcomes for this population (Hagen & Galupo, 2014). A trans-positive care approach has been accepted by a diverse community of researchers and practitioners (Coleman et al., 2011; Lev, 2009; Thornhill & Klein, 2010; Vanderleest & Galper, 2009) and major health authorities such as the American College of Obstetricians and Gynecologists (ACOG, 2011).

Despite existing attempts to enhance health care access for trans people, there is a dearth of literature that considers the individual, cultural, and institutional factors regarding the implementation of trans-positive care. While Thornhill and Klein (2010) have discussed positive individual-level health outcomes of implementing environments of care with trans persons living with HIV, scant research exists that has explored the institutional and clinical conditions under which trans-positive care is likely to emerge. Lysenko (2009) asserts that simply taking a trans-positive stance is not enough to improve the clinical treatment of trans populations. Instead, policy and practice changes must be implemented and evaluated (Lysenko, 2009). For instance, health care centers could provide intake forms that allow individuals to indicate both the sex they were assigned at birth and their current gender identity (Radix, Meacher, & Sanchez, 2015). Such policy and practice changes yield a more supportive and respectful health care environment for trans individuals (Hagen & Galupo, 2014). A promising starting point for developing and implementing trans-positive care however may be at the individual HCP level.

**Understanding the conditions for clinical behavior change using the Precede-Proceed model**

Standing for predisposing, reinforcing, and enabling constructs in educational diagnosis and evaluation, and the policy, regulatory, and organizational constructs in educational and environmental development, the Precede-Proceed model (herein referred to as PPM) is a valuable tool for developing behavior change interventions, and its most recent conceptualization includes a number of steps to do so (Green & Kreuter, 2005). A crucial step is the completion of an Educational and Ecological Assessment (EEA). Conducting an EEA includes identifying antecedent or predisposing, enabling, and reinforcing factors that may contribute to health-behavior change and maintenance. Predisposing factors include an array of pre-existing conditions that may influence behavior change in a given population, such as individual beliefs, attitudes, personal preferences, motivation, and existing skills and knowledge (Banerjee, Grace, Thomas, & Faulkner, 2010; Gielen, McDonald, Gary, & Bone, 2008). Enabling factors include variables that may facilitate, catalyze, or stimulate motivation for actually engaging in behavior change, such as available resources and new skills. Finally, reinforcing factors of behavior change and maintenance include determinants that are likely to sustain behavior...
change in a group of individuals, such as social support and peer influence (Banerjee, Grace, Thomas, & Faulkner, 2010; Gielen, McDonald, Gary, & Bone, 2008).

Given the utility of an EEA in identifying factors that are likely to influence health-behavior change and maintenance and, in turn, inform interventions at various levels of practice (Green & Kreuter, 2005), this approach may be effective in identifying the conditions for HCPs to adopt trans-positive care practices. Indeed, given existing uses of this model to identify factors associated with particular health behaviors as grounds for informing public health interventions and policies (Banerjee, Grace, Thomas, & Faulkner, 2010), employment of an EEA for outlining the behavioral conditions for improved trans health care is warranted. As such, in what we hope may serve as a guide for developing trans-positive clinical practice, we organized what we found in the literature according to predisposing, reinforcing, and enabling factors associated with trans-positive behavior-change intervention for HCPs in clinical practice.

Methods

Four electronic databases were used to identify scholarly and gray literature from March 2015 to December 2015: PsychInfo, PubMed, Medline and Google Scholar. For published studies, no limits were imposed on study design type, and relevant studies conducted in Australia, Canada, Sweden, the United Kingdom, and the United States were included. Studies published in English from 2002 and onward were compiled for review and analysis. Combinations of search terms used to identify relevant studies included transgender, transsexual, trans, healthcare, primary care, physicians, mental health, trans-positive care, trans-positive, transgender health care, behavior change, Precede-Proceed, educational and ecological model, behavior change, and clinical guidelines. Additional hand searches of reference lists of included studies were also conducted. Studies included in this summary met the following inclusion criteria: (a) presented barriers or facilitators to clinical care for trans populations; (b) discussions surrounding trans-positive clinical care; and (c) implemented health behavior change models for the purpose of analyzing provider-level health promotion interventions. A total of 47 studies and gray-literature documents were included for review. Because research on trans health is in its infancy, there are limited studies that use health-behavior-change models in the context of trans-positive care. Our search did not produce any trans-positive behavior-change interventions designed for HCPs. We found only two qualitative studies that explore physician-level barriers to delivering care to trans patients (Poteat, German, & Kerrigan, 2013; Snelgrove et al., 2012).

Results

Barriers to delivering trans-positive care, despite the best intentions of HCPs, individual values and practice norms, may influence the implementation of and adherence to clinical behaviors associated with best practices, regardless of the intervention. For example, Limbert and Lamb (2002) have found that junior physicians’ intentions to use clinical-practice guidelines are significantly higher when compared to those of senior medical practitioners, which as a clinical behavior, may be a reflection of physicians’ willingness to adhere to institutionalized practice norms earlier in their careers. Thus, physicians with less experience may be more likely to implement clinical practice guidelines than those with a lot of experience when working in a clinical environment in which colleagues also follow guidelines. McKinlay et al. (2007) have similarly found that younger, less experienced medical providers are more likely to adhere to clinical practice guidelines than more-experienced physicians.

In terms of providing care to gender minorities, physicians experience multifactorial barriers that impede the provision of care to trans patients (Snelgrove, Jasudavisius, Rowe, Head, & Bauer, 2012). These barriers include a lack of clinical knowledge regarding treatments or ethical issues (e.g., whether the patient would regret medical transition), a scarcity of physicians who choose trans health as an area of interest, and a tendency among HCPs to overemphasize trans identity as a concern of mental health specialists rather than one of primary care. Other researchers have similarly found that trans people are unnecessarily referred to mental health specialists and that trans patients may at times be forced to receive mental health treatments when they present for access to transition resources (Kosenko, Rintamaki, Raney, & Maness, 2013; Poteat, German, & Kerrigan, 2013). To account for reasons underlying these impediments to
trans-positive care, it may be important to note that many HCPs are not equipped to treat trans patients due to a lack of trans education in medical school (Obedin-Maliver et al., 2011; Radix, Meacher, & Sanchez, 2015; Vanderleest & Galper, 2009). This lack of education may explain why 50% of over 6,000 gender minority survey respondents in a U.S. study reported having to teach their HCPs about their unique health needs (Grant et al., 2010) and why 11 of 12 providers in a qualitative study disclosed feeling ambivalent or unprepared for their first trans patient (Poteat, German, & Kerrigan, 2013). Importantly, this literature begins to underscore the institutional barriers that exist within educational and health care settings and the shortcomings in terms of HCPs’ abilities to provide trans-positive care. While not discounting the need to address various institutional-level barriers, to develop and implement trans-positive care it may be more fruitful to start at the individual HCP level.

In the following section we organize our findings thematically as predisposing, reinforcing, and enabling factors in an effort to inform the development of trans-positive clinical behavior change at the individual HCP level.

**Predisposing factors**

Conditions affecting the implementation of trans-positive care among HCPs include the role of clinical habit and preventative medicine, the recognition of trans bodies in health care contexts, and the de-pathologizing of trans identity.

**The role of clinical habit and preventative medicine**

HCPs must form new clinical habits to implement trans-positive care. The role of habit in predicting health care professionals’ clinical behaviors is an important issue in improving the effectiveness of interventions (Nilsen, Roback, Brostrom, & Ellstrom, 2012). Habit can be defined as a set of behaviors that have been repeated to the point of becoming automatic. The behavior is performed by situational or contextual cues rather than being guided by beliefs, attitudes, or intentions (Nilsen, Roback, Brostrom, & Ellstrom, 2012). Clinicians’ positive attitude and intention to make changes to health care practice may not be enough if the behavior that requires intervention is habitual (Rochette, Kornier-Bitensky, & Thomas, 2009); for example, rather than automatically conducting cervical exams for female clients and prostate exams for male clients, clinicians must develop a new practice habit of respectfully asking trans patients about their particular anatomy in order to make decisions about their health care needs. Such a practice is consistent with Hagen and Galupo’s (2014) “whole-person” approach, which may benefit trans and gender-nonconforming individuals who do not medically transition.

Stressing the role of trans-specific preventive medicine is also an important predisposing factor related to trans-positive clinical care. For instance, the use of trans-positive language, applying age-appropriate cancer-screening guidelines, such as breast/chest exams, cervical exams for men who have a cervix, and testicular/prostate exams for trans women with these organs, are examples of trans-positive preventative care. HCPs who align themselves with preventative care philosophy and who feel confident in trans-specific knowledge of preventative care may adhere to trans-positive care at higher rates than those who do not see the value in preventative medicine. This is consistent with Mirand and colleagues’ (2003) finding that preventative care delivery practices are often contingent upon HCPs’ perceived role in its delivery. Trans-positive interventions with HCPs may be more successful by building in resources for each medical visit that account for the additional time required for learning trans-specific preventative care and for supporting trans patients. This is important as some trans patients have encountered trans-related discrimination from HCPs (Bradford, Reisner, Honnold, & Xavier, 2013; Grant et al., 2011). Relatedly, some trans patients attending medical appointments may experience expectations of discrimination and fear (Dewey, 2008), requiring greater communication and trust building in the clinical encounter to mediate these fears.

**Recognition of trans persons in health care settings**

Growing awareness of trans identities, bodies, and related health issues within health care contexts will assist in creating an environment in which trans-positive clinical care can be delivered. Bauer and colleagues (2009) highlight the concept of erasure, calling attention to the institutional barriers that erase and render trans-people invisible when they attempt to access the health care system, as a notable barrier to health care access, and therefore implicitly emphasize...
the importance of trans recognition in these settings. Physicians similarly report that they lack clinical knowledge and expertise surrounding trans health issues (Snelgrove et al., 2012). Thus, as HCPs and health care organizations begin to understand trans populations and recognize their existence, trans-positive care interventions may be more successful.

Depathologizing trans identity
In order for trans-positive clinical interventions to work, HCPs must depathologize trans experiences and identities. Largely due to the inclusion of gender identity disorder (GID) within the sexual disorders section of the Diagnostic and Statistical Manual of Mental Disorders (DSM) (referred to as “gender dysphoria” in the DSM-V), many HCPs conflate trans identity and transitioning with psychopathology (Snelgrove et al., 2012). Trans people are perpetually viewed as mentally ill and sexually deviant due to this category within the DSM (Winters & Ehrbar, 2010). These medical diagnoses continue to be used by HCPs in order to “gatekeep” access to transition services (Serano, 2007; Stryker, 2008). This may be also why 7% of trans participants (n = 152) in Kosenko and colleagues’ (2013) study reported being involuntarily committed to psychiatric care. Clients who express a trans identity and/or a desire to transition sex may then be deferred to psychiatrists, further contributing to the association of trans identity with psychological distress. This despite recommendations by organizations such as the World Professional Association for Transgender Health (WPATH) that transitioning is best guided within comprehensive primary care (Coleman et al., 2011) and that acknowledges that trans identity must be “de-psychopathologized” (Snelgrove et al., 2012). This may be the reason why many trans-positive clinicians and researchers advocate for the minimization of trans identity as a psychiatric issue (Austin & Craig, 2015; Hagen & Galupo, 2014; Snelgrove et al., 2012; Winters & Ehrbar, 2010). Sues, Espineira, and Walters (2014) introduce a trans depathologization framework, suggesting that transition is an expression of human diversity rather than a mental disorder. Although prompting HCPs to depathologize trans identities and experiences is likely to improve health care access among gender minorities, it is important to note that systemic issues, including for instance the lack of insurance coverage for gender confirming procedures in many jurisdictions worldwide (Cruz, 2014; Roberts & Fantz, 2014) often contribute to the pathologization of trans populations and as such require attention at the same time as individual HCP behavior. Although exploration of the latter may be beyond the scope of this article, the prospect of depathologization can be realized only if behavior change among HCPs is sought along with structural or systemic change.

Reinforcing factors
Factors that may reward or provide incentive for HCPs who adhere to trans-positive clinical practice include the increase of social inclusion of trans individuals and changing medical norms in health care settings.

Increasing trans visibility
As the visibility of gender minority populations increases in North America, awareness of trans individuals’ unique health needs continues to rise (e.g., see MacKinnon & Kia, 2015). Bauer et al. (2009) argue that including trans-specific resources within the health care system, such as trans-friendly signage and intake forms, may confront the systematic erasure of trans people. Trans-positive HCPs, by contributing to a growing field of health care research and practice, may be rewarded by being considered competent and well informed within the medical profession (and by trans patients, thereby growing their trans patient base) and may in turn encourage the adoption of trans-positive behavior. The desirability to be trans-inclusive is increasing, as evidenced through the inclusion of gender identity in the Human Rights Codes of many Canadian provinces (TESA, 2016), and the development of trans antistigma video campaigns such as the “I AM: Trans People Speak” (White Hughto, Reisner, & Pachankis, 2015). The I AM project depicts trans people sharing their stories for the purpose of educating cisgender audiences. Educational video initiatives aimed to reduce discrimination such as these have been successful in the context of lesbian, gay, bisexual, and trans youth (Vinney, 2014). For a population that has been historically pathologized, social change and acceptance is occurring at a rapid speed. This movement will carry over to HCPs, who are also actors influenced by social norms (Montano & Kasprzyk, 2008). As social awareness of the trans community grows and gender minorities are viewed
more positively, HCPs’ views of their trans patients may also change, and trans-positive clinical behaviors may be rewarded socially through staking a claim in implementing progressive clinical practices.

**Trans-positive–medical-provider norms**

As mentioned, research indicates that some physicians, particularly those at the junior level, are highly influenced by norms within medical settings (Limbert & Lamb, 2002). In fact, behaviors of others in one’s network are a predictive factor of normative influence (Mantano & Kasprzyk, 2008); that is, social desirability to deliver trans-positive care influences and reinforces the growth of trans-affirming HCPs’ practice, which would also lead to the proliferation of new primary care habits. As research supporting trans-positive primary care grows, more medical students may be introduced to trans issues in their education, and thus, the number of physicians adhering to clinical practice guidelines will increase and affect medical provider norms. All of these aspects of behavior change could potentially culminate in the creation of new HCP norms. If clinicians are influenced by their colleagues to deliver trans-positive care, this behavior will be repeated in order for these HCPs to be perceived as competent and effective practitioners. Similarly, the social desirability to be trans-inclusive among peers will provide incentives for HCPs, particularly for junior physicians who are more likely to be influenced by subjective norms and to adhere to clinical guidelines.

**Enabling factors**

Factors identified within the literature that may enable trans-positive care at the individual–HCP level include the introduction or increase of content regarding trans populations and their health care needs in medical school curriculum and growing evidence in terms of an increase in trans health research.

**Trans health education**

Trans-related discrimination in health care settings may be the result of a lack of preparation in medical education programs (Snegrove et al., 2012; Vanderleest & Galper, 2009) and limited availability of information around providing care for trans patients (Roberts & Fantz, 2014). For example, a recent study has revealed that only 30% of medical schools (n = 132) surveyed in the United States and Canada cover issues related to gender transition and sex reassignment surgery and that most medical education training provides no coverage of trans health issues at all (Obedin-Maliver et al., 2011). Eliason and colleagues (2010) refer to this issue as a “silence” on health issues concerning sexual and gender minorities. Again, the notion of erasure, specifically informational erasure, is fitting here, referring to “both a lack of knowledge regarding trans people and trans issues and the assumption that such knowledge does not exist even when it may” (Bauer et al., 2009, p. 352). In other words, the lack of trans content in medical school curricula and textbooks systematically deprioritizes trans people’s unique health care needs and subsequently preventive and other clinical care interventions for this population.

Positive outcomes related to the introduction and evaluation of trans health training programs for medical students have been identified in the United States (for example, Vanderleest & Galper; Dowshen, Nguyen, Gilbert, Feiler & Margo, 2014). In both program evaluation studies, trans health knowledge, attitude, and skills among HCPs were found to improve after exposure to a brief trans-positive medical education training workshops (Vanderleest & Galper, 2009; Dowshen et al., 2014). Given the research (Limbert & Lamb, 2002; McKinlay et al., 2007) that shows that junior physicians (rather than more experienced physicians) are more likely to adhere to clinical practice guidelines, it would be particularly effective to implement trans competency training in medical education programs. As students and trainees in various health and medical fields are increasingly introduced to trans population–specific health needs in their education through the delivery of evidence by clinicians and researchers, HCPs beginning their careers may be enabled to adhere to clinical practice guidelines.

**Growing trans health research and resources**

HCPs’ prescribing behaviors and adherence to practice recommendations are strongly influenced by the quality and strength of available evidence (Rashidian & Russell, 2011). Accordingly, as trans health research is a growing field, the body of strong evidence may become increasingly difficult to ignore. Because empirical studies of trans health often yield similar findings in terms of health outcomes and therefore strengthen the validity of this evidence base, HCPs
who keep abreast of current literature may be more likely to provide trans-positive care. There are also several trans–health care guidelines that have been developed for use by HCPs; for example, the Vancouver Coastal Health “Transgender Primary Medical Care” guideline is accessible online (Feldman & Goldberg, 2006), as is the Toronto-based Sherbourne Health Centre’s “Guidelines and Protocols for Hormone Therapy and Primary Health Care for Trans Clients” (Bourns, 2015). The Fenway Institute in Boston offers online webinars and interactive training modules. Again, these resources provide strong evidence for clinicians that may enable trans-positive or at least more-trans-competent care. The proliferation of trans health resources may also legitimize and depsychiatrize the field of health care with trans populations.

Discussion

Though change is needed at all levels to improve health care access, care experiences, and outcomes for trans populations, in this review we identified predisposing, reinforcing, and enabling factors at the individual HCP level that are important to consider when developing an intervention for trans-positive clinical behavior change. While we only utilized one step of the PPM in this paper, using the complete model and other relevant behavior-change models and theories to develop and evaluate trans-positive care interventions and programming is necessary to continue this work. Studying the outcomes of trans-positive care on HCPs’ clinical practice behaviors with gender minority patients and/or on this population’s experiences accessing health care services would greatly improve knowledge in the area of trans health care, making health policy and practice changes possible. In keeping with the article’s purpose, improvements in clinical practice may be contingent on the identification of an array of factors that are likely to lead to clinical behavior change among HCPs, and such recognition may offer insight into the ways to improve health care for trans individuals at the interpersonal and the institutional levels of practice.

At the same time, it is important to recognize that trans people are not a homogenous group. Trans men, trans women, and other gender-nonconforming groups have unique health concerns and experiences in their interactions with HCPs. Though much of the literature we identified focuses on transition-related care, many gender minorities do not pursue medical transition (for a number of reasons including personal choice and lack of financial resources to do so). It is important to note that those who have not pursued medical transition-related care still face many of the same or similar barriers (e.g., lack of provider knowledge, provider assumptions). As such, education and training programs must attend to these nuances of gender diversity and the varied health needs of trans populations through a “whole person” approach (Hagen & Galupo, 2014). Administrators and educators at medical schools should consider providing more transition-related content, offering entire courses on a range of gender diversity issues, to ensure adequate coverage of health promotion and medical interventions related to the experiences of being trans. Considering the varied needs of trans populations, lengthier coverage of trans health may be more beneficial than delivering a short, one-time unit on sexual and gender diversity. For instance, while we suggest that all trainees be exposed to trans content—so they are better prepared to attend to the primary care needs of trans populations (including content regarding pronoun use, the spectrum of trans identities, and health disparities), considering the high rates of poor mental health among trans populations and the barriers trans people face in the context of assisted reproduction (James-Abra, Tarasoff, Marvel, Green, Epstein, et al., 2015)—some may benefit from increased or more specialized education. Exposure to trans-related health issues and trans-positive clinical norms from the outset of medical training, when future physicians are at a junior level, may ensure a more successful outcome in terms of trans-positive care. Similarly, the inclusion of high-quality trans health research in mainstream medical journals could be used to inform medical education and clinical competencies. High-impact medical journals should consider publishing research in the area of gender minority health in order to improve the strength of evidence supporting trans-positive care.

Limitations

We conducted a scan of the literature to illustrate the potential range of predisposing, reinforcing, and enabling factors associated with trans-positive clinical behavior-change interventions at the individual HCP level. Our scan did not include a systematic review of
the literature. Future research in the area of trans-positive clinical behavior change could be strengthened by evaluating studies included in terms of their rigor and statistical validity. Though we did not systematically evaluate each study, it is important to note our observation that white trans people appear to make up the majority of participants in many of the studies we identified. Research and subsequently clinical practice should attend to the diversity of gender minority identities and to how gender minority identities intersect with other identities and determinants of health. Notably, issues associated with socioeconomic status and race/ethnicity are, in particular, critical to consider in research on providing care to trans populations for various reasons (e.g., high rates of violence against trans women of color, high rates of poverty among trans people in general). For instance, Mar cellin, Bauer, and Scheim (2013) found that HIV-related sexual risk behavior was higher among trans people of color and Grant et al. (2011) reported that trans people of color fared worse than white participants with regard to employment, housing, abuse by police, and a variety of other indicators, with African American trans people faring worse than all others in many areas.

Despite the limitations of our scan of the available research, this article presents an important contribution to the literature, as the first known summary of factors to consider in the development of interventions for trans-positive clinical behavior change at the individual HCP level. Future research could aid in further illuminating the facilitators and barriers, or challenges, at the individual HCP level and other levels to providing trans-positive care.

**Conclusion**

In this review article, we have considered the predisposing, reinforcing, and enabling factors associated with trans-positive clinical behavior-change interventions for HCPs. While the rationale for researchers’ and practitioners’ advocacy on trans-positive care has been illustrated, this call to action relies on the assumption that clinical behavior change is possible among HCPs. As we did not identify any studies that use health behavior models to explain trans-related discrimination and stigma or to plan for the implementation of trans-positive behavior change interventions with HCPs, we suggest that future research aim to fill this gap. The PPM may be a useful tool for systematic development and evaluation of clinical behavior-change interventions at the HCP level.

**References**


Conron, K. J., Scott, G., Sterling Stowell, G., & Landers, S. J. (2012). Transgender health in Massachusetts: Results from


