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Provision of gender affirming care among medical and allied health practitioners: The influence of transnormative beliefs in working with gender diverse patients

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ABSTRACT

Gender diverse patients (including gender diverse, transgender, and non-binary people) deserve quality health care, which has been referred to as gender affirming care. Given that practitioners' attitudes and competence can influence their provision of gender affirming care, this study used a lens of transnormativity (Bradford & Syed, 2019; Johnson, 2016) to develop a measure of practitioners' transnormative beliefs. The aim of the study was to determine if these beliefs were related to practitioners' gender affirming attitudes and perceptions of competence in gender affirming practice. Survey data were collected from Australian medical and allied health practitioners ($N = 95$). Exploratory factor analysis was applied to items measuring transnormative beliefs, with the results supporting three higher order factors; conditional approval, narrative, and gender role beliefs. Conditional approval reflected belief in gender diverse identity as authentic and worthy of intervention. Narrative beliefs reflected understanding of common developmental experiences among gender diverse populations, specifically experiences of victimisation and nascence. Gender role beliefs reflected belief in the existence of gender roles. In models that regressed gender affirming attitudes and self-perceived competency on all transnormative beliefs, controlling for demographics and work history, practitioners higher in conditional approval were lower in gender affirming attitudes and practitioners higher in narrative beliefs were higher in gender affirming attitudes and competency. Conditional approval was not significantly associated with competency, and gender role beliefs were not significantly associated with attitudes or competency. Results indicate that practitioners' transnormative beliefs are related to their gender affirming attitudes and suggest that targeting these beliefs through training opportunities could bridge the gap between gender diverse people's healthcare needs and the ability of healthcare practitioners to provide high quality care.

1. Provision of gender affirming care among medical and allied health practitioners: The influence of transnormative beliefs in working with gender diverse patients

Gender affirming care has been defined as health care that recognises gender diverse individuals (i.e., those who do not identify with the gender recorded for them at birth), non-normative gender identities (including transgender, agender, and non-binary people), and enables social, psychological, behavioural, or medical interventions to support these identities (World Health Organisation, 2024). Thus, gender affirmative health care implies the provision of high-quality care to gender diverse persons that enables and affirms their gender diverse identity. However, within Australia, high-quality care for gender diverse patients can be constrained by several factors. These can include intrafamily strain introduced by the processes of coming out – both anticipated (von Doussa et al., 2020) and experienced (Riggs et al., 2015), social legislation and laws that make gender affirming care difficult to access, especially during extraordinary events such as the COVID-19 pandemic

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(White Hughto et al., 2017; Zwickl et al., 2023), and the high costs associated with gender affirming care due to inadequate government-funding for surgical gender affirming interventions (Bretherton et al., 2021), and a necessity to pay out of pocket to receive medical care (Cronin et al., 2023).

Even when the above barriers to gender affirming care are minimised or absent, practitioners' personal beliefs about gender diversity (Gridley et al., 2016; Madera et al., 2019; White Hughto et al., 2017) can interfere with gender diverse individuals' quality experiences with health care and impact negatively on patients' mental health (Kattari et al., 2016; Turban et al., 2022). By using a lens of transnormativity (Bradford and Syed, 2019; Johnson, 2016), and collecting survey data from the Australian medical community, the objectives of this study were to investigate medical and allied health care practitioners' beliefs about gender diversity through the lens of transnormativity, and to explore whether those beliefs explained practitioners' gender affirming attitudes and perceived self-competence in providing gender affirming care.

1.1. Practitioner beliefs and patient care

Healthcare practitioners' endorsement of beliefs about broad groups of people can and do affect practitioners' provisioning of care. For example, in a study of 322 general practitioners, greater endorsement of schizophrenia stereotypes was found to influence the perception of the dangers posed by people with schizophrenia, and in turn, a doctor's therapeutic approach (Magliano et al., 2017). In a separate study, the stereotype that culturally and linguistically diverse (CALD) patients are less likely to adhere to medical advice was felt to result in substandard care from medical practitioners (Komaric et al., 2012). When the demands of contemporary practice are considered (including both the time allotted to work with patients, and the volume of appointments practitioners are expected to fill; Eva and Norman, 2005), there exists an argument that such beliefs may be functional, allowing practitioners to draw on prior knowledge to provide more efficient and cost-effective care (Eva and Norman, 2005). However, given the extensive variability within gender diverse populations, adherence to normative or stereotypical beliefs about gender diversity (see Madera et al., 2019) may represent a barrier to care in the same way that unrecognised or unconscious biases can affect care provisioning in other populations (Chapman et al., 2013).

Within the context of gender-affirming care, some beliefs may be expressed by practitioners in ways that are experienced by gender diverse patients as stigmatising. Practitioners' verbal and nonverbal communication, behaviours and other interactions with gender diverse patients can be resultant of practitioners' personal beliefs regarding diverse gender identity (White Hughto et al., 2015). These beliefs can then lead to care inequalities including (but not limited to) misgendering or delegitimisation of identity within the clinical setting (Zwickl et al., 2019), inappropriate and invasive attribution of unrelated medical diagnoses to gender diverse identity (Wall et al., 2023), and refusal of care entirely by practitioners with profoundly negative beliefs or attitudes regarding gender diverse identity (Bretherton et al., 2021). In the present study, we build on previous research on practitioners' level of stigma (e.g., dismissive attitudes toward assertions of gender diverse identity or subscribing to fixed gender roles; Madera et al., 2019) to consider practitioners' beliefs, positive or negative, using the theoretical lens of *transnormativity*: predominant sociocultural narratives describing the normative or acceptable definitions and expressions of gender diverse identity (Johnson, 2016).

1.2. Transnormative beliefs

Transnormative beliefs about gender diversity include how gender diversity is embodied and expressed, the conditions under which it should be considered acceptable or authentic (referred to as *legitimacy* by Bradford et al., 2019), and its developmental origins and pathways. Seven beliefs were identified as aspects of transnormativity in a study that interviewed gender diverse people about their experiences with emerging cultural norms (Bradford and Syed, 2019). These transnormative beliefs (or *themes*), which are described below in more detail, address gender diverse people's experiences embedded within cultural or social settings that generate normative narratives of the diverse gender experience. Using these themes as a foundation, this study conceptualised transnormative beliefs within healthcare practice.

The first theme, *medicalisation,* describes the belief that gender diverse people generally will be (or should be) pursuing or undergoing medical intervention (e.g., hormone replacement therapy, surgeries) related to their gender expression (Bradford and Syed, 2019). Although it is true that many gender diverse people do pursue such medical interventions when doing so is viable, expecting all gender diverse people to do so may impact on the care provided. For example, medicalisation beliefs may lead to care disparities when practitioners begin to prioritise the delivery of medicalised gender affirming care to the exclusion of other medical issues (Wright et al., 2021). Lack of desire for, or evidence of having undertaken such care, may also be a basis for invalidating patients' claims to gender diverse identity (Bindman et al., 2021). Relatedly, the second theme, *gatekeeping,* describes a transnormative belief that being allowed to begin gender affirming care should be dependent upon having been assessed as possessing an 'authentic' gender diverse identity, usually by medical or psychological health practitioners (Bradford and Syed, 2019). In practice, gatekeeping beliefs can come to represent a considerable barrier to care, as fulfilling the requirements necessary for assessment can impose financial and mental health burdens due to the costs (Cronin et al., 2023) and lengthy wait times associated with receiving assessments from multiple practitioners (Frohard-Dourlent et al., 2020). Combined, medicalisation and gatekeeping beliefs create an environment wherein gender diverse patients are expected to be seeking transition, yet their ability to do so can be both enabled and constrained by empowered others whose attitudes toward gender diverse patients may be negative or paternalistic (Madera et al., 2019). These beliefs share their origins in the earliest attempts to legitimise the delivery of gender affirming care (Riggs et al., 2019).

The third theme, *nascence,* describes the transnormative belief that gender diverse identity is innate, enduring, and present since early in a person's life (either explicitly, or by having felt different in some way; Bradford and Syed, 2019). Although this belief may reflect the lived experience of many gender diverse people, research suggests that gender diverse identity follows a range of developmental pathways (omitted for review). Further, some gender diverse individuals may not experience a sense of gender constancy, instead experiencing gender as fluid (Bradford et al., 2019). For such patients, expectations of nascence can represent a barrier to care, as they may experience doubt or delegitimisation of identity for not being able to claim the experience of nascence (Puckett et al., 2018). As a result, some gender diverse people report fabricating early life experiences to be considered eligible for necessary gender affirming care (Carlile et al., 2021; Wright et al., 2021).

The remaining four transnormative beliefs (gender binarism, gender roles, victimisation, and legitimacy) may also be barriers to care. A belief that gender is a binary construct (*gender binarism*; Bradford et al., 2019) can introduce difficulties in accessing care for individuals with non-binary identities (Puckett et al., 2018). Relatedly, alignment to *gender roles* (i.e., beliefs that position gender diverse identity as acceptable only if gender diverse people embody specific cultural standards of femininity or masculinity; Bradford et al., 2019), may impose barriers if gender diverse individuals are perceived as not feminine or masculine enough to possess a gender diverse identity (Ward, 2019). Alignment to *victimisation* themes, or beliefs that having gender diverse identity may lead to more difficult life experiences (Bradford et al., 2019), can become a barrier to care if practitioners approach interaction with gender diverse patients with a deficiency mindset, presupposing that such patients will have encountered victimisation in life if they have not already done so, and may make for more complicated cases as a

result (Poteat et al., 2013). Finally, *legitimacy* beliefs concern the conditions under which people across society – practitioners, patients, and others – consider gender diverse identity to be legitimate (Bradford et al., 2019). Legitimacy beliefs may manifest as practitioner anxiety about whether patients are authentically gender diverse, and behaviours related to this belief may be experienced as arbitrary and invasive by patients (for example, cataloguing a patient's piercings as indicators of gender; Fraser et al., 2021).

When considering specifically how medical contexts and training can influence practitioners' transnormative beliefs, beliefs may arise from a range of experiences, including interactions with gender diverse patients (Rider et al., 2019), intentional training opportunities undertaken (Nolan et al., 2020), or exposure to theory that seeks to describe diverse gender identity development (Bockting and Coleman, 2007; Devor, 2004). Riggs et al. (2019) in tracing the history of the psychology and psychiatrics disciplines' relationship with gender diversity, argue that these norms may be a product of attempts to rationalise gender diverse identity within medical climates historically resistant or hostile to gender non-conformity. In practice, these beliefs may function similarly to stereotypes, and like stereotypes, can have positive or negative valence.

Despite the possibility that transnormative beliefs could impact upon the provision of the quality of patient care, no studies to date have investigated medical practitioner beliefs using this transnormative lens. Previous studies of medical practitioners' beliefs have focussed upon themes of acceptance and legitimacy of gender diverse identities (Clark and Hughto, 2020; Kanamori et al., 2017) or behaviours that suggest bias and stigma (Madera et al., 2019), but do not examine developmental beliefs (such as nascence), or beliefs about a practitioner's role in enabling gender affirmation and gender affirming care, such as providing referrals or interventions (gatekeeping). As such, it is difficult to isolate how beliefs may differ on dimensions beyond acceptance of identity, despite the impact such beliefs may have upon care outcomes, both in terms of enabling gender affirming care (Carlile, 2020; Puckett et al., 2018) and influencing gender diverse people's uptake of medical care more generally (Eisenberg et al., 2020; Guss et al., 2019). This lack of clarity led to the first research question of this study.

RQ1. To what extent are transnormative beliefs endorsed by Australian medical and allied health practitioners?

2. Correlates of practitioners' transnormative beliefs about gender diversity

Identifying transnormative beliefs among health practitioners opens up the opportunity to identify correlates of these beliefs that could impact on health care provision and quality, including gender affirming attitudes and feelings of competence in gender affirming practice. In this study, we explored how practitioners' transnormative beliefs are related to self-reported attitudes about gender diversity and perceived competency in providing care to gender diverse people.

2.1. Attitudes toward gender diversity

In previous research, practitioners' attitudes toward gender diversity and gender diverse people have often been reported to be generally gender-affirming and positive (Heng et al., 2018; Kanamori and Cornelius-White, 2017), and these attitudes have been described as becoming more positive in recent times (Kanamori and Cornelius-White, 2016). However, such reports are often contrasted with gender diverse patients' experiences in seeking care. In an Australian study, 26% of gender diverse participants experienced discrimination when seeking healthcare due to their gender identity (Bretherton et al., 2021). Further, despite the benefits that can accrue from accessing gender affirming care, in times of stress upon the medical system (e.g., the COVID-19 pandemic), provisioning of gender affirming care can become deprioritised within broader public health initiatives, and force gender diverse patients to interface with medical professionals with stigmatising or negative attitudes (Zwickl et al., 2023). Reflecting these experiences, Australian medical professionals who do service gender diverse communities often have negative perceptions of the capacity or attitudes of the broader medical community to address gender diverse health needs (Piñón-O'Connor et al., 2023). This suggests that, to some extent, studies indicating positive or improving practitioner attitudes toward gender diversity may be self-selecting.

Importantly, although not directly measuring transnormative beliefs in health care practitioners, past research does suggest that some transnormative beliefs could be obstructive to quality care even among practitioners who express positive and affirming attitudes towards gender diverse patients. For example, MacKinnon et al. (2021) noted that among medical staff who express gender affirming attitudes and provide gender affirmative care, fears about patients experiencing transition regret or the possibility of alternative diagnoses were found (reflecting gatekeeping beliefs), as were concerns about patient legitimacy. Furthermore, past research has found that there are difficulties for those identifying as non-binary in securing care despite practitioner willingness to treat binary-identified people, which may reflect beliefs of gender binarism (Puckett et al., 2018). As such, although medical practitioners may be generally expected to have gender affirming attitudes when surveyed, it is unclear how these relate to endorsement of transnormative beliefs that do not address acceptability (e.g., beliefs regarding nascency, or endorsement of gender roles).

Though it is often presumed that a practitioner's attitudes will be consistent with their beliefs (Marsh and Wallace, 2014), existing research has not allowed for an examination of how attitudes relate to transnormative beliefs. Measures investigating practitioner attitudes toward gender diversity rarely also measure transnormative beliefs, instead including items focused on positive attitudes such as acceptance, tolerance, and personal comfort with gender diversity (Clark and Hughto, 2020; Kanamori et al., 2017). Thus, the second research question posed in this study was.

RQ2. To what extent do medical and allied health practitioners' transnormative beliefs explain their gender affirming attitudes?

2.2. Perceived competency

Similar to attitudes, practitioners' personal sense of competency – reflective of their personal experience and willingness to address care disparities – may be explained by transnormative beliefs. Practitioners report that working directly with gender diverse patients represents a salient source of knowledge about gender diversity (Armuand et al., 2020; Rider et al., 2019). This exposure is often predictive of an increased sense of competency (O'Hara et al., 2013), with reports of greater confidence, comfort, and clinical knowledge among practitioners who have had experience with gender diverse patients as compared to those who have not (Riggs and Bartholomaeus, 2016). These results mirror findings regarding the development of cultural competence when working with culturally diverse patients; direct contact and experience working with patients and people of different cultures has been found to be associated with more culturally competent practice (Choi and Kim, 2018; Shapiro et al., 2006).

Survey studies investigating links between exposure to diverse groups and perceived competence have demonstrated bidirectional associations between one's sense of competency and exposure (Allison et al., 1996). Further to this, highly competent practitioners (both self-rated and rated by colleagues) have increased exposure to diverse or complex clientele regardless of years of formal experience, and uniformly high motivation to engage with these populations (King et al., 2008). These findings suggest that increased exposure and experience leads to more awareness of, motivation for, and competency in addressing the unique needs of diverse people. This is borne out in

studies of practitioners who manage gender diverse care; practitioners' self-rated competency has been linked to willingness to assume the gender affirming care of other practitioners' patients (Shires et al., 2018).

These studies suggest that perceptions of competency, arrived at through combinations of motivation (King et al., 2008) and experience (O'Hara et al., 2013; Riggs and Bartholomaeus, 2016), may partly follow from practitioners' beliefs about gender diversity. However, given that practitioners learning new skills in healthcare settings selectively attend to influences that align with their pre-existing beliefs whilst developing a sense of competency (Watling et al., 2012), it is unclear if health practitioners' perception of competence working with gender diverse people is associated with their transnormative beliefs. As such, the third research question posed in this study was.

RQ3. To what extent are medical and allied health practitioners' transnormative beliefs related to their perception of competency in meeting the needs of gender diverse patients?

2.3. The current study

To address the three research questions described above, this study measured transnormative beliefs (Bradford and Syed, 2019; Johnson, 2016) in medical and allied health practitioners working in the Australian healthcare system. To test the potential influence of transnormativity, this study also examined the associations of transnormative beliefs on practitioners' attitudes toward gender diverse populations and their personal sense of competency in providing gender affirming care. In this way it may be possible to isolate potential targets for competency building and to identify characteristics of practitioners more likely to be open to meeting the needs of gender diverse people, to reduce or eliminate care disparities in gender diverse populations.

3. Method

3.1. Participants

A sample of 97 Australian medical (doctors, surgeons, nurses, $n = 48$, 49.5%) and allied health (non-medical professionals such as psychologists, physiotherapists, and speech pathologists, $n = 49$, 50.5%) practitioners participated in this study ($M_{age} = 42.25$, 76 female, 10 male, 11 non-binary or unspecified); please see Table 1 for complete data regarding practitioner speciality. Practitioners had on average 14.10 years of health care work experience ($SD = 9.50$). Half ($n = 47$) of the practitioners reported having undertaken continuing professional development (CPD) to address gender affirming care or gender diverse patients; of these, 25 practitioners reported 2–20 h of training, with the remainder ($n = 22$) reporting more than 20 h.

Table 1
Practitioners by medical or allied health speciality.

Speciality	Medical Practitioners	Allied Health Practitioners
General Practice	15	
Nursing	8	
Psychiatry	6	
Endocrinology	5	
Paediatrics	4	
Medical doctor (not specific)	3	
Anaesthesiology	2	
Immunology	2	
Dentistry	2	
Surgery	1	
Psychology		17
Speech Pathology		11
Counselling		8
Social Work		5
Occupational Therapy		4
Nutrition		2
Physiotherapy		1
Podiatry		1
Total	48	49

3.2. Procedure

This study was granted ethical approval by the [omitted] University Human Research Ethics board (Reference: 2022/543). Participants were recruited from May to August of 2022 and were required to be Australian practitioners over the age of 18, working within medical or allied health disciplines. There were no other restrictions to inclusion. The study was advertised on Facebook and distributed through Twitter, LinkedIn, and within Facebook groups that served specific specialist communities. Additionally, the study was circulated via mailing lists and official communications of several professional practice organisations, sent to practitioners directly through email and flyer delivery in the greater regional area, and distributed internally within a university with a healthcare workforce and university hospital. Participants were given the opportunity to attend a seminar about research on gender diverse identity as a thank you for their time.

3.3. Measures

3.3.1. Practitioners' transnormative beliefs

Thirty-five items were developed to measure practitioners' transnormative beliefs. Relevant items were drawn from the Gender/Sex Diversity Beliefs Scale (GSDB; Schudson and van Anders, 2021), and new items were developed to measure facets of transnormativity as described by Bradford and Syed (2019) that were not covered by the GSDB. In the first step of item development, the 23 existing GSDB items were mapped onto the seven themes of transnormativity (medicalisation, legitimacy, nascency, gender binarism, gender roles, gatekeeping, and victimisation). New items were then generated so that there were five items per theme. The full set of 35 items is presented in supplementary material with GSDB items indicated. Each item was rated on a scale from 1 = *strongly disagree*, to 6 = *strongly agree*, with higher scores indicating greater endorsement of a transnormative belief. Exploratory factor analysis and methods of item reduction were employed (see supplementary materials for complete analysis), resulting in three factors: Conditional acceptance (beliefs about the circumstances under which gender diverse identity should be treated as authentic or real; 8 items; $\alpha = 0.86$), narrative beliefs (beliefs or expectations about lived experiences of gender diverse people; 6 items; $\alpha = 0.84$), and gender role beliefs (belief regarding the similarity of people of the same gender, not just in the context of gender diversity; 3 items; $\alpha = 0.70$). Across the three identified factors, all seven themes of transnormativity were present.

3.3.2. Gender affirming attitudes

The Transgender Knowledge, Attitudes, and Beliefs scale (TKAB; Clark and Hughto, 2020) was used to measure practitioners' self-reported gender affirming attitudes. Wording was modified to address 'gender diverse people' instead of 'transgender people', and a single item was added ("A person transitioning from male-to-female should not be able to compete in women's sports", reverse scored) to reflect an issue that was highly relevant within the Australian context at the time of survey development. Participants were asked how much they agreed with each statement on a rating scale from 1 = *strongly disagree*, to 6 = *strongly agree*, expanding upon the original scale's 4-point Likert-type scale to capture more variability of attitudes. The scale demonstrated excellent reliability ($\alpha = 0.94$). Some items were reversed before averaging item responses, with a higher score indicating more gender affirming attitudes.

3.3.3. Practitioner competence in providing gender affirming care

Self-perceived competence in providing gender affirming care was

measured with eight items adapted from the Professional Sense of Competence Scale (PSOCS), which was originally designed to measure competency in practitioners who treat disruptive behaviours in children (Swan et al., 2021). The PSOCS items were adapted to refer to gender affirming care for this study (e.g., "I have expert level knowledge of *gender affirming care*"), and five items from the original scale were removed that could not be altered to reflect the provision of gender affirming care. Participants were asked how much they agreed with a statement on a rating scale from 1 = *strongly disagree*, to 6 = *strongly agree*. The scale demonstrated excellent reliability (α = 0.95). Item responses were averaged, with a higher score indicating greater perceived competence.

3.4. Data analytic approach

Prior to conducting analyses to answer the research questions, an exploratory factor analysis, using SPSS version 28, was conducted to identify the factor structure of the 35 items designed to measure practitioner transnormative beliefs. A three factor structure (conditional acceptance, narrative beliefs, and gender role beliefs) was identified (see supplementary material for exploratory factory analyses) and the items loading onto each factor were averaged to create composite scores. Using RStudio, bivariate correlations were calculated, followed by hierarchical regression models on practitioner's gender affirming attitudes and perceived competency. Control variables were introduced in Step 1, and the subscales of transnormative beliefs (conditional acceptance, narrative beliefs, and stereotypical gender beliefs respectively) were entered in Step 2.

The control variables entered in Step 1 included practitioners' gender, years of practice, and whether the practitioner performed in a medical or allied health capacity, as these have been found to be important covariates in past research (Kanamori and Cornelius-White, 2016; Riggs and Sion, 2017). Evidence of having sought out professional development education related to gender diversity was introduced as a control variable in this step also (CPD hours undertaken). Practitioners report a range of difficulties in securing continuing education opportunities (Paradiso and Lally, 2018), and willingly seeking out and engaging with gender affirming care education despite difficulties securing access may have associations with gender affirming attitudes or personal sense of competency. As non-binary and intentionally unspecified individuals constituted >10% of the dataset, gender was also controlled for by categorising participants into two dummy variables: *female*, representing those who identified as female, compared to those who did not (male, non-binary/unspecified), and *non-binary*, representing those who identified as non-binary or unspecified, compared to those who identified with binary gender (male, female). In this way, the effects of identifying as *male* could be inferred as male was selected as the reference gender.

4. Results

No data were missing. Three participants were recoded as female based upon their free responses to the gender item (identifying themselves explicitly as female), and participants were coded as medical or allied health based upon medical or allied health specialty. Due to extreme skew in the CPD hours variable, 18 values above 20 h were censored (i.e., recoded as 20). Analysis of outliers detected two individuals that had outlying scores on multiple measures. Excluding these two participants from the analyses also had some leverage on the results. Thus, these two individuals were excluded, and the reported results include the final sample size of 95 practitioners.

4.1. Bivariate correlations and descriptive statistics

Correlations and descriptive statistics (means and standard deviations) are presented in Table 2. The means of conditional acceptance and stereotypical gender beliefs were low, while the mean of narrative beliefs was moderate to high. This suggests that the practitioners in this sample generally accepted patients' gender diverse identities without qualifiers and had little belief in stereotypes of gender. Practitioners were also likely to endorse narratives of gender diverse identity that reflected nascency and potential difficulties in life. Conditional acceptance was strongly negatively correlated with narrative beliefs, and positively correlated with stereotypical gender beliefs. Narrative beliefs were not significantly associated with stereotypical gender beliefs.

As shown in Table 2, each of the subscales of transnormative beliefs were correlated with one or more of the measures of CPD hours, practitioners' sense of competence, gender affirming attitudes, age, and years of practice. Conditional acceptance was strongly negatively correlated with gender affirming attitudes, negatively correlated with practitioners' perceived competency, and positively correlated with age, but was not significantly associated with CPD. Narrative beliefs were strongly positively correlated with gender affirming attitudes, but not significantly correlated with other measures. Gender role beliefs had a negative correlation with gender affirming attitudes but was not associated with other measures.

Among the other variables, the measure of practitioners' gender affirming attitudes was positively correlated with practitioners' perceived competence, and gender affirming attitudes had a negative correlation with age (see Table 2). Age and years of practice were strongly positively correlated, as such, only years of practice was included as a covariate in the following regression analyses to adjust for the influence of practitioners' work experience.

Table 2
Correlations and descriptive statistics of study variables.

	1	2	3	4	5	6	7	8
1. Gender Affirming Attitudes	–							
2. Perception of Competence	0.21*	–						
3. Age	−0.24*	−0.04	–					
4. Years of Practice	−0.10	−0.08	0.77***	–				
5. CPD Hours Undertaken	0.03	0.62***	0.04	−0.05	–			
6. TB: Conditional Approval	−0.70***	−0.24*	0.27**	0.15	−0.12	–		
7. TB: Narrative Beliefs	0.68***	0.17	−0.12	−0.10	−0.13	−0.38***	–	
8. TB: Stereotypical Gender Beliefs	−0.21*	−0.01	0.10	0.04	−0.03	0.40***	0.01	–
M	5.18	4.16	42.21	13.99	6.59	1.97	4.53	1.91
SD	0.94	1.14	9.66	9.47	8.32	0.85	1.08	0.93

Note. CPD = continuing professional development, TB = transnormative beliefs.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

4.2. Unique associations of all measures with practitioners' attitudes and competence

4.2.1. Gender affirming attitudes

In the first step of the model explaining gender affirming attitudes, the control variables accounted for 9% of the variance (see Table 3). Although practitioner identification as female relative to other genders was significantly (positively) related with gender affirming attitudes at step 1, the step was not significant overall. The second step, introducing transnormative beliefs, accounted for an additional and significant 62% of the variance in gender affirming attitudes. Conditional approval was negatively associated with gender affirming attitudes ($\beta = -0.49$, $p < 0.001$), while narrative beliefs were positively associated with gender affirming attitudes ($\beta = 0.49$, $p < 0.001$). At step 2, practitioner identification as female relative to other genders remained significantly positively associated with gender affirming attitudes ($\beta = 0.17$, $p = 0.04$).

4.3. Perceptions of competence

The first step in the model of perceived competence was significant and accounted for 44% of the variance (see Table 3). CPD hours ($\beta = 0.68$, $p < 0.001$) and working within a medical context relative to allied health contexts ($\beta = 20$, $p = 0.016$) were significantly associated with practitioners' personal sense of competence. The inclusion of transnormative beliefs at step 2 accounted for an additional significant 8% of variance. Narrative beliefs were positively associated with a perception of competency in addressing gender affirming care ($\beta = 0.28$, $p = 0.002$). All significant associations found at step 1 remained significant at step 2.

5. Discussion

This study was the first to operationalise the seven transnormative themes originally identified by Bradford and Syed (2019) that reflect beliefs about gender diversity and test these among Australian medical and allied health practitioners. The items developed to measure these themes coalesced into three factors: Conditional approval, representing the extent to which practitioners felt a gender diverse identity should be considered authentic, and a candidate for gender affirming care; narrative beliefs, representing practitioners' beliefs about the life experiences of gender diverse people; and gender role beliefs, capturing practitioners' beliefs about the similarity and uniformity of people with the same gender identity. Items used to measure practitioners' transnormative beliefs, which were combined to represent three composite beliefs following exploratory factor analysis results, had unique relationships with each other. The first factor, conditional approval, measured the conditions under which practitioners considered a claim to gender diverse identity to be legitimate; higher values indicated that a practitioner's personal beliefs about when gender diverse identity was legitimate were more proscriptive, and represented more barriers to care. Practitioners, on average, scored low in conditional approval, reflecting previous research showing that that gender affirming attitudes are generally high within samples of practitioners (Heng et al., 2018; Kanamori and Cornelius-White, 2017).

The second transnormative belief identified, narrative beliefs, measured beliefs about gender identity development. Specifically, narrative beliefs represented the enmeshing of Bradford and Syed's (2019) themes of victimisation and nascency, suggesting that practitioners high in this belief believe gender diverse identity to be both innate and unchangeable, and that increased difficulties in life may be a direct result of the developmental and life challenges introduced by gender diverse identification. This belief was moderately endorsed by practitioners.

The final emergent transnormative beliefs factor was gender role beliefs, representing the belief in gender role stereotypes. The items comprising this theme included only items from the uniformity scale of the GSDB (Schudson and van Anders, 2021). Gender stereotypical beliefs were low on average among practitioners, but had a modest positive correlation with conditional approval.

Table 3
Results of two models regressing (1) gender affirming attitudes and (2) perceived competence on control variables (step 1), and transnormative beliefs (step 2).

	Gender Affirming Attitudes *B* (SE *B*)		Perception of Competence *B* (SE *B*))	
	Step 1	Step 2	Step 1	Step 2
Gender (female)	0.29* (0.31)	0.17* (0.18)	0.02 (0.3)	0 (0.28)
Gender (non-binary)	0.02 (0.41)	0.07 (0.24)	0.12 (0.39)	0.18 (0.38)
Years of Practice	−0.13 (0.01)	0.02 (0.01)	−0.05 (0.01)	0 (0.01)
Medical Specialist	0.08 (0.19)	−0.01 (0.11)	0.20* (0.18)	0.19* (0.17)
CPD Hours Undertaken	0.03 (0.01)	0.03 (0.01)	0.63*** (0.01)	0.66*** (0.01)
TB: Conditional Approval		−0.49*** (0.08)		−0.05 (0.13)
TB: Narrative Beliefs		0.49*** (0.06)		0.28** (0.09)
TB: Stereotypical Gender Beliefs		−0.02 (0.07)		0.04 (0.1)
R^2	0.09	0.71***	0.44***	0.53***
ΔR^2	–	0.62***	–	0.08**

TB = Transnormative beliefs.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

5.1. Transnormative beliefs as related to practitioners' attitudes and competence

Beyond exploring how transnormativity manifests in healthcare practitioners, this study also investigated how those transnormative beliefs are associated with potential influences on confidence and competence in providing gender affirming care. Specifically, we examined gender affirming attitudes and practitioners' personal sense of competency.

5.2. Gender affirming attitudes

Correlational analyses suggested that practitioners higher in their endorsement of conditional approval and gender role beliefs held fewer gender affirming attitudes. Conversely, practitioners with more narrative beliefs held more gender affirming attitudes. When entered into the regression model, however, only conditional approval and narrative beliefs had unique associations (negative and positive, respectively) with gender affirming attitudes, when controlling for demographic measures and CPD hours completed. Taken together, these findings suggest that practitioners' gender affirming attitudes tend to be associated with beliefs that deemphasise 'correctly' identifying gender diverse identity in patients, and beliefs that acknowledge the difficulties such identities may introduce to a person's life. Additionally, participants who identified as female were more likely to have or hold gender affirming attitudes, reflecting associations noted in previous studies (Kanamori et al., 2017; Kanamori and Cornelius-White, 2017; Riggs and Sion, 2017).

The finding that conditional beliefs are negatively associated with gender affirming attitudes may shed light on the contrast between practitioners' self-reported, generally positive, attitudes (Heng et al., 2018; Kanamori and Cornelius-White, 2017) and gender diverse patients' mixed experiences seeking care. Negative experiences that nonetheless enabled gender affirming care may reflect experiences with

practitioners who held less positive attitudes but were willing to provide care if a patient's gender diverse identity seemed to align with conditional beliefs (MacKinnon et al., 2021). These expectations may result in difficulties securing care when gender identity is not binary (Puckett et al., 2018), or when dysphoria or sense of difference does not seem to have existed or remained stable since early in life (Bradford and Syed, 2019). When patient presentation fulfils these conditional beliefs gender diverse people may be able to secure care despite negative practitioner attitudes, which may contribute to community perceptions that a specific narrative of experience is necessary to receive care (Kearns et al., 2021).

At the same time, the finding that narrative beliefs were associated with greater gender affirming attitudes suggests that a higher degree of sympathy to the challenges that gender diverse people may experience across the lifespan is associated with positive attitudes to care. The enmeshing of nascency narratives with these victimisation beliefs implies these practitioners believe gender diverse identity to be innate and unchangeable, and that increased difficulties in life may be a direct result of the developmental challenges introduced by gender diverse identity. This enmeshing also leads to the opposite conclusion for practitioners with low gender affirming attitudes – these practitioners may be more likely to consider gender diverse identity a choice, and by extension, consequences of that choice to be avoidable.

5.3. Perceived sense of competency

Transnormative beliefs were also associated with practitioners' sense of competency. Specifically, in the zero-order correlations, practitioners who were higher in conditional approval reported less personal sense of competency and those higher in narrative beliefs reported more competency. However, in the regression when all beliefs and other covariates were considered, only the measure of narrative beliefs was uniquely positively associated with competency. The reasons for this result may be two-fold. As demonstrated in previous studies, feeling a greater sense of competency in working with diverse patient groups can be supported by a recognition that care disparities exist and are worthy of devoting time and effort to address (King et al., 2008). As such, beliefs that gender diverse people encounter care disparities as a result of their innate, unchangeable identity, may drive practitioners to foster competency in addressing those care disparities.

Given that a personal sense of competency as a practitioner can also be a product of experience, associations with narrative beliefs could also share their roots with the typical patients encountered by practitioners. As noted in previous studies, not all gender diverse people will present for gender affirming care (Clark et al., 2018; Puckett et al., 2018), and those that do may feel compelled to present a specific narrative of gender diverse experience to receive care (Carlile et al., 2021; Wright et al., 2021). Simultaneously, by virtue of speciality or reputation, some practitioners may selectively encounter patients who embody specific narratives of gender diverse identity (e.g., transgender women are far more likely to present to HIV prevention or treatment services; Jadwin-Cakmak et al., 2019). As such, while competency may increase practitioner sensitivity to the healthcare needs of gender diverse patients who do speak to experiences represented by narrative beliefs, they may also predispose practitioners to believing such experiences are normative.

Beyond transnormative beliefs, CPD hours completed was strongly associated with practitioners' perceptions of competency. This seems to suggest that CPD is one way to boost competence, but it also may suggest that practitioners selectively attend to training opportunities that speak to the needs of their practice, and the communities they support (Cook et al., 2017); this training may, in turn, produce a greater sense of competency. Additionally, medical practitioners felt themselves to be more competent in addressing gender affirming care needs than allied health practitioners. This result may have emerged as allied health practitioners' roles in enabling gender affirming care are less clear. While some allied health modalities have clear or expected roles in the provisioning of gender affirming care (e.g., psychologists may perform assessments; Coleman et al., 2022), other modalities may not be provided with the same guidance or training opportunities that allow them to best meet the needs of gender diverse patients. By contrast, medical practitioners can defer to clear to standards of care, such as those produced by World Professional Association for Transgender Health (WPATH; Coleman et al., 2022) or Australian Professional Association for Trans Health (AusPATH; Cundill, 2020), and enjoy training opportunities that reflect their specific role(s) within those standards of care (surgical techniques, implementing hormone replacement therapy, etc.; Nolan et al., 2020), enhancing their personal sense of competency.

5.4. Gender role beliefs

The third measure of transnormative beliefs, gender role beliefs, had no association with practitioners' gender affirming attitudes or self-rated competency in this sample. This finding may be because participants in this study predominantly identified as women, and the limited research into stereotypical gender role beliefs of medical professionals has found that women are less likely to endorse binary beliefs about gender than their male counterparts (Kanamori and Cornelius-White, 2016). Furthermore, pursuing a career in male-dominated fields such as medicine may be an indicator that these women have less endorsement of traditional gender roles, predicated instead on their orientation toward goal achievement (Evans and Diekman, 2009). As such, it may be expected that the participants' endorsement of gender role beliefs was generally low and this could account for its little explanatory power.

6. Strengths, limitations, and conclusions

This study is the first to measure transnormative beliefs in medical and allied health practitioners, finding that the items were best organised into three themes: Conditional acceptance (beliefs about the circumstances under which gender diverse identity should be treated as authentic or real), narrative beliefs (beliefs or expectations about lived experiences of gender diverse people), and gender role beliefs (belief regarding the similarity of people of the same gender). This work has also demonstrated how these beliefs are related to attitudes and perceptions of practitioner competence in working with gender diverse populations. However, as the study is cross-sectional, it cannot speak to causality, and as such, it is difficult to determine if interventions designed to address transnormative beliefs would change attitudes and support practitioners to feel more competent in their practice, or whether the converse might be true. Additionally, like previous studies that have demonstrated affirming attitudes in health practitioners, the participants in the present study may be subject to self-selection biases, especially given the incentive for participation (invitation to a seminar exploring diverse gender identity development). As such, being a relatively small sample of exclusively Australian practitioners, who may have been motivated to engage with the subject matter, the generalisability of these findings may be limited, especially when considering extending the findings to nations or cultures wherein prevailing attitudes about gender diversity are more restrictive or negative. Finally, although extant research speaks to the impact of practitioners' beliefs (particularly biases and stigmas) upon gender affirming care and gender diverse patients (e.g., Madera et al., 2019), this study did not directly address whether transnormative beliefs directly impact upon health care experiences for practitioners or patients. Given that some practitioners' transnormative beliefs may be a positive resource, future research might address this gap by directly investigating how transnormative beliefs transfer into communication and other aspects of interpersonal interaction of medical and allied health personnel with gender diverse patients.

Despite these limitations, these results have important potential implications for practice. Although gender affirming attitudes and a

sense of competency are correlated, the beliefs and covariates associated with these two indicators of practice are unique. Notably, despite correlational evidence, practitioners' sense of competency is not uniquely associated with personal beliefs regarding what constitutes a legitimate claim to gender diverse identity. Rather, competence appears to be driven by beliefs regarding the potential vulnerability of gender diverse people, and the intentional training opportunities taken to address those vulnerabilities. Given that the lack of a sense of competency has been cited by practitioners as personal barriers to providing gender affirming care (Rider et al., 2019; Shires et al., 2018), identifying practitioners who hold gender affirming attitudes and beliefs, and scaffolding them through training opportunities and competency building, may represent a step toward addressing the widening gap between gender diverse people's healthcare needs and the ability for the broader medical and allied health community to provide necessary care.

Declarations

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CRediT authorship contribution statement

Molly Speechley: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Writing – original draft, Writing – review & editing. **Jaimee Stuart:** Conceptualization, Methodology, Supervision, Writing – review & editing, Formal analysis. **Riley A. Scott:** Formal analysis, Supervision, Writing – review & editing. **Bonnie L. Barber:** Formal analysis, Supervision, Writing – review & editing. **Melanie J. Zimmer-Gembeck:** Formal analysis, Supervision, Writing – review & editing.

Data availability

The data that has been used is confidential.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.socscimed.2024.116876.

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