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Trans People, Transitioning, Mental Health, Life and Job Satisfaction

Nick Drydakis*

Abstract

For trans people (i.e. people whose gender is not the same as the sex they were assigned at birth) evidence suggests that transitioning (i.e. the steps a trans person may take to live in the gender with which they identify) positively affects positivity towards life, extraversion, ability to cope with stress, optimism about the future, self-reported health, social relations, self-esteem, body image, enjoyment of tasks, personal performance, job rewards and relations with colleagues. These relationships are found to be positively affected by gender affirmation and support from family members, peers, schools and workplaces, stigma prevention programmes, coping intervention strategies, socioeconomic conditions, anti-discrimination policies, and positive actions. Also important are legislation including the ability to change one's sex on government identification documents without having to undergo sex reassignment surgery, accessible and affordable transitioning resources, hormone therapy, surgical treatments, high-quality surgical techniques, adequate preparation and mental health support before and during transitioning, and proper follow-up care. Societal marginalization, family rejection, violations of human and political rights in health care, employment, housing and legal systems, gendered spaces, and internalization of stigma can negatively affect trans people's well-being and integration in societies. The present study highlights that although transitioning itself can bring well-being adjustments, a transphobic environment may result in adverse well-being outcomes. Policy makers should aim to facilitate transitioning and create cultures of inclusion in different settings, such as schools, workplaces, health services and justice.

Key words: Trans People, Transitioning, Gender Reassignment Surgery, Mental Health, Life Satisfaction, Job Satisfaction

JEL codes: D91, I10, J12, J10, J28, K38

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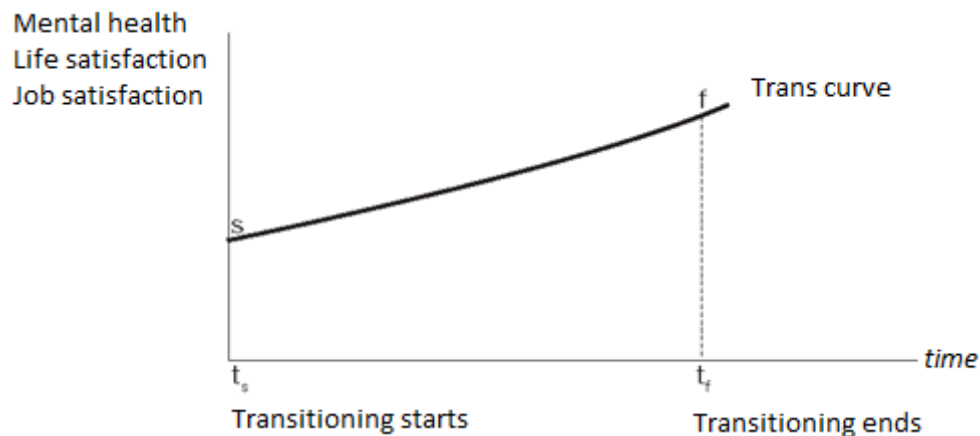
1. Introduction: the Trans Curve

International quantitative and qualitative studies suggested a positive relationship between transitioning and mental health (Cardoso da Silva et al., 2016; Brewster et al., 2014, Callan, 2014, Brewster et al., 2012, Dhejne et al., 2016, Murad et al., 2010, De Cuypere et al., 2006, Lobato et al., 2006, Smith et al., 2005, De Cuypere et al., 2005, Green, 2005), transitioning and life satisfaction (van de Grift et al., 2017; Bockting et al., 2016; Brewster et al., 2014, Brewster et al., 2012, Salvador et al., 2012, Parola et al., 2010, Lobato et al., 2006, De Cuypere et al., 2006, Smith et al., 2005) and transitioning and job satisfaction (Martinez et al., 2017; Brewster et al., 2014; Brewster et al., 2012; Scottish Transgender Alliance and Stonewall Scotland, 2012; Morton, 2008).

In Drydakis (2017a) the positive relationships between mental health, life satisfaction and job satisfaction arising from changing one's appearance to match gender identity were presented through the so-called Trans Curve. The Trans Curve was created after evaluating relevant empirical patterns for employed individuals, during and after transitioning, in England, Wales and Scotland (Drydakis, 2016; 2017b). The Trans Curve is presented in Figure 1. The horizontal axis presents transitioning stages. At least two points can be identified: the transitioning starting point (s) and the transitioning ending point (f). Points lying in the s to f section on the Trans Curve represent the transitioning period. The vertical axis presents three variables: mental health, life satisfaction and job satisfaction. Through a single curve with a positive slope the three relationships are presented.

As is highlighted in Drydakis (2017a) the three corresponding curves should not coincide in practice since there are constructs which cover different concepts and are formed from different items, although all are characterized by a positive slope. Based on the empirical literature it is expected that mental health, life and job satisfaction levels after transitioning (point f) will be enhanced compared to their levels before transitioning (point s). Or, point f is placed higher in comparison to point s. In addition, it is expected that during transitioning the three constructs will get higher values than before transitioning (Drydakis, 2017a; b). The Trans Curve provides comparisons of before and after transitioning on well-being indicators (mental health and life satisfaction) and job satisfaction for trans people only and does not compare scores between trans and cis people (i.e. people whose gender identity is the same as the sex they were assigned at birth).

Figure 1. The Trans Curve. During and after transitioning trans people experience better mental health and higher life and job satisfaction than they do before transitioning.



Notes: Resources Drydakis (2017a). Mental health's components are positivity towards life, extraversion, ability to cope with stress and optimism about the future. Life satisfaction consists of satisfaction with health condition, social-relations, self-esteem and body image. Job satisfaction is formed by enjoyment of tasks, personal performance, job rewards and relations with colleagues. The positive relationships between mental health, life satisfaction and job satisfaction from changing one's appearance to match gender identity are presented through the so-called Trans Curve. These relationships are found to be positively affected by family, social and workplace support, gender affirmation, socioeconomic conditions, accessible and affordable transitioning resources, hormone therapy, surgical treatments, high-quality surgical techniques, adequate preparation and mental health support before and during transitioning, proper follow-up care, positive actions, stigma prevention programmes, coping intervention strategies, anti-discrimination policies and legislation including the ability to change one's sex on government identification documents without having to undergo sex reassignment surgery.

Although the original Trans Curve (Drydakis, 2017) is based on observations of employed trans people before and after sex reassignment surgery, literature review studies have concluded that positive mental health, life satisfaction and general well-being adjustments due to transitioning can be observed with different employment statuses and medical and surgical interventions (Bockting et al., 2016; Costa and Colizzi, 2016; Dhejne et al., 2016; White Hughto and Reisner, 2016; Schmidt, and Levine, 2015; Gijs, and Brewaeys, 2007; Michel et al., 2002). The general pattern assigned is that transitioning can improve the well-being of trans people, hence the Trans Curve might be applied to capturing a trans person's well-being adjustments due to transitioning regardless of employment status and the undergoing of medical interventions.

Transitioning is a broad concept consisting of several steps and each person can adopt a different approach (Drydakis, 2017a). The initiation of transitioning, as well as the end of transitioning, can be realized through different events and strategies based on personal desires and circumstances (Drydakis, 2017a; b, 2016). Even before the initiation of transitioning positive well-being outcomes can be observed during the period of accepting a trans identity (Drydakis, 2017a). It has been hypothesized that acceptance of one's trans identity might precede the initiation of transitioning (Drydakis, 2017a). The end of transitioning is reached when alignment between

gender identity and outward appearance has been achieved (Drydakís, 2017a; b, 2016). The stage of accepting a trans identity, the initiation of transitioning, the duration of transitioning and the end of transitioning are supposed to be affected by a plethora of factors. These include personal desires, family, network and societal approval and support, socioeconomic conditions, accessible and affordable transitioning resources, medical treatments, high-quality health services and institutional frameworks (Bozani et al., 2019; Sidiropoulou et al., 2019; Tebbe et al., 2019; OECD, 2019; Webster et al., 2018; Köllen, 2016; Reisner et al., 2016; Drydakís, 2017a; b, 2016; Bockting et al., 2016; Costa and Colizzi, 2016; Dhejne et al., 2016; White Hughto and Reisner, 2016; Schmidt, and Levine, 2015; White Hughto et al., 2015; Gijs, and Brewaeys, 2007; Michel et al., 2002). Similarly, decisions on medical interventions and changes in identity documents which can determine the stages which trans people pass through are supposed to be determined by a vector of factors consisting of trans people's desires, socioeconomic conditions, supportive environments and legal frameworks (OECD, 2019; Drydakís, 2017a; b, 2016; Köllen, 2016; Sevelius, 2013; Imbimbo et al., 2009).

Trans people experience marginalisation, societal biases, family rejection, and violations of human and political rights in health care, education, employment, housing and legal systems (Drydakís, 2017a; b, 2016). These can result in lower human capital, higher unemployment and poverty rates, homelessness, and adverse health and mental health outcomes including higher rates of depression and self-harming than cis people (OECD, 2019; Drydakís, 2017a; b, 2016; Reisner et al., 2016; Glynn et al., 2016; Köllen, 2016; White Hughto et al., 2015; Bevan, 2015; Trevor and Boddy, 2013; Dhejne et al., 2011).

Causal inferences about how transitioning affects well-being should be offered with caution since reciprocal effects, endogeneity and inter-correlations among the aforementioned factors may be prevalent (OECD, 2019; Drydakís, 2017a; b, 2016). It might be the case that although transitioning itself can bring positive well-being adjustments, because it brings reliefs from gender dysphoria, a transphobic environment can marginalise a person, resulting in adverse well-being effects and socioeconomic outcomes (Drydakís, 2017a; b, 2016). We suggest that transitioning's positive outcomes can be challenged in a transphobic society. However, transitioning's positive outcomes might be boosted in an inclusive society. Policy makers' aim should be to facilitate transitioning and create cultures of inclusion in different settings, such as schools, workplaces, health services and justice. Coordinating actions are needed in order for trans people to be equally integrated into societies (Drydakís, 2017a).

The review is structured as followed. Section two provides evidence on the relationship between transitioning and mental health, life satisfaction and job satisfaction. Section three presents

the factors which can positively affect trans people's transition. The last sections present the study's limitations and summary of the key emerging conclusions of the review.

In the analysis that follows only few studies compared trans people's well-being statuses before and after transitioning and offered comparisons with general populations, i.e. trans women vs cis women and trans men vs cis men (Table 1). If the result of such a study were discussed a clear description of the comparison base could be offered.

2. Transitioning and adjustments

2.1 Transitioning and mental health

Transitioning positively affects positivity towards life, extraversion, ability to cope with stress and optimism about the future (Drydakis, 2017b). These items form a person's mental health (WHO, 2014). Cross-sex hormones and surgical treatments are found to be associated with improved mental health and decreased levels of anxiety, depression, suicidality and substance use due to a decline in gender and anatomic dysphoria (Drydakis 2017b; Bouman et al., 2016; Cardoso da Silva et al., 2016; Keo-Meier et al., 2015; Boza and Nicholson Perry, 2014; Davis and Meier, 2014; Hess et al., 2014; Colizzi et al., 2013; Costantino et al., 2013; Gorin-Lazard et al., 2012; Colton-Meier et al., 2011; Ainsworth and Spiegel, 2010 Gijls and Brewaeys, 2007; Michel et al., 2002). The Trans Curve (Figure 1) presents a positive mental health pattern.

Weyers et al. (2009) found that trans women score highly on mental health levels compared to general populations. Collizi et al. (2013) found that when treated with hormone therapy trans people reported lower cortisol awakening responses, falling within the normal range for cortisol levels. The same study found that treated trans people experienced lower perceived stress with levels similar to normative samples. Similarly, Heylens et al. (2014) found that after hormone therapy psychological problems and symptoms scores resembled those of the general population. Keo-Meier et al. (2015) found that testosterone treatment resulted in increased levels of psychological functioning on multiple domains in trans men relative to general populations. De Cuypere et al. (2006) found that while no differences in psychological functioning were observed between people who had sex reassignment surgery and the general population people with a pre-existing psychopathology retained more psychological symptoms than the general population. The study of Simonsen et al. (2016) found that sex reassignment surgery may reduce psychological morbidity for some individuals while increasing it for others. Dhejne et al. (2011) observed that although sex reassignment surgery can alleviate gender dysphoria the overall mortality rate for sex-reassigned persons was higher during follow-up than for general populations. Dhejne et al. (2011) concluded that improved psychiatric and somatic care after sex reassignment were necessary to address the assigned outcomes.

Factors which can predict successful transitioning in relation to a significant reduction in adverse mental health symptoms were found to be gender affirmation, family, social, institutional, legal and workplace support, anti-discrimination policies, hormone therapy, surgical treatments, adequate preparation prior to and during transitioning and well-prepared follow-up care provision, as well as high-quality medical interventions outcomes (Drydakis, 2017a; 2016; Glynn, et al. 2016; Castellano et al., 2015; Köllen, 2016; Bailey et al., 2014; Sevelius, 2013; Ainsworth and Spiegel, 2010; Imbimbo et al., 2009). These factors can boost the relationships presented in the Trans Curve (Figure 1).

2.2 Transitioning and life satisfaction

Drydakis (2017b) found that transitioning was associated with increases in self-reported health, social-relations, self-esteem and body image. These subjective evaluations of a person's quality of life were found to shape life satisfaction (Cheng and Smyth, 2015; Linley et al., 2009; Pavot and Diener, 2008). McNeil et al. (2012) presented that trans people felt that they had gained confidence, self-expression and resilience as a result of being trans. In addition, Kraemer et al. (2008) found that preoperative trans people were not secure and felt unattractive because of concerns about their body image. However, postoperative trans people scored high on attractiveness and self-confidence, as well as scoring low on insecurity and concerns about their body.

In the literature studies found that transitioning can positively affect a person's life satisfaction through positive changes in appearance, attractiveness, body satisfaction, sex life, health-related quality of life, family and social relationships, partner relations, achievements in life, personal goals, self-confidence, identity and spirituality (van de Grift et al., 2017; Bockting et al., 2016; Costa and Colizzi, 2016; Köllen, 2016; Dhejne et al., 2016; White Hughto and Reisner, 2016; Cardoso da Silva et al., 2016; Schmidt, and Levine, 2015; Castellano et al., 2015; Ruppin and Pfäfflin, 2015; Brewster et al., 2014, Manieri et al., 2014; Hess et al., 2014; Brewster et al., 2012, Salvador et al., 2012, Gorin-Lazard et al., 2012; Colton-Meier et al., 2011; Johansson et al., 2010; Parola et al., 2010, Weyers et al., 2009; Imbimbo et al., 2009; Nelson et al., 2009; Kraemer et al., 2008; Gijs, and Brewaeys, 2007; Lobato et al., 2006, De Cuypere et al., 2006, Smith et al., 2005; Michel et al., 2002).

Gorin-Lazard et al. (2012) noted that trans people's quality of health vector, independently of hormonal status, did not differ from the general population except for two subscales: physical (lower scores in trans people) and general health (lower scores in general populations). Gómez-Gil et al. (2014), Gorin-Lazard et al. (2012) and Gorin-Lazard et al. (2013) found that cross-sex hormonal treatment was linked to a better quality of life. In addition, de Vries et al. (2014) found that in young adulthood well-being after gender reassignment was similar to or better than same-age

young adults from the general population. Moreover, van de Grift (2017) estimated that the level of satisfaction with quality of life was similar between trans people who had surgically reassigned their gender and general reference values. Weyers et al. (2009) found that trans women scored highly on physical level, gender-related bodily features, appreciation of their appearance as perceived by others, and their own satisfaction with their self-image as women compared to the general population. However, the study found that sexual functioning was suboptimal when compared with general populations.

Lindqvist et al. (2017) estimated that although transitioning led to an improvement in general well-being quality of life decreased slightly in line with that of the general population. The decline in quality of life was a relatively small in magnitude finding. Ainsworth and Spiegel (2010) found that mental health-related quality of life was diminished in trans women without surgical intervention compared to the general population and trans women who had gender reassignment surgery, facial feminization surgery or both. Ainsworth and Spiegel (2010) presented that trans women have diminished mental health-related quality of life compared with the general population but surgical treatments were associated with improved mental health-related quality of life.

The evidence can suggest that transitioning is a worthy experience in terms of life satisfaction (Drydakis, 2017a). This relationship is presented in the Trans Curve (Figure 1). Studies have provided insights suggesting that for some trans people transitioning is the most positive and rewarding experience they have ever had in their lives (Budge et al., 2013). Budge et al. (2015) unearthed eight positive emotion themes for trans men: confidence, comfort, connection, feeling alive, amazement, pride, happiness, and interpersonal reactionary emotions. Family support, a working or studying status, as well as trans group memberships were found to be predictors of life satisfaction and quality of life for trans people (Bar et al., 2016; Gómez-Gil et al., 2014). Similarly, social and psychological affirmations have been found to be predictors of higher self-esteem (Glynn et al., 2016). In addition, accessible and affordable transitioning resources for trans people, a well-conducted preoperative preparation programme, competent surgical skills, and consistent postoperative follow-up have been found to promote better quality of life and high levels of satisfaction (Glynn et al., 2016). Moreover, trans females on cross-sex hormones who came out as trans and transitioned at an earlier age were found to experience higher self-esteem, and presented with fewer socialization problems (Bouman et al., 2016; Imbimbo et al., 2009).

2.3 Trans people's mental health and quality of life, before and after medical interventions and comparisons with general populations

Table 1 presents those studies which have examined mental health and quality of life/well-being fluctuations before and after medical interventions and provide comparisons with general

populations. It is observed that all studies found that hormone therapy and gender reassignment surgery led to increased mental health, psychological functioning and general quality of life, and reduced gender dysphoria, depression, stress and anxiety (Lindqvist et al., 2017; van de Grift et al., 2017; Keo-Meier et al., 2015; Heylens et al., 2014; de Vries et al., 2014; Collizi et al., 2013). However, a consensus cannot be reached if the focus is on mental health and quality of life/well-being comparisons between trans people after medical interventions and general populations. It was found from the studies that:

- (i) Trans people after hormone therapy and/or gender reassignment surgery experienced psychoneurotic distress scores, perceived stress and well-being comparable to those of general populations (Heylens et al., 2014; Keo-Meier et al., 2015; de Vries et al., 2014; Collizi et al., 2013). In addition, trans people who were satisfied with gender reassignment surgery experienced quality of life scores similar to general populations (van de Grift et al., 2017).
- (ii) Trans people who were dissatisfied with or regretful about their gender reassignment surgery's outcomes scored lower in terms of quality of life than general populations (van de Grift et al., 2017).
- (iii) Trans women had a lower quality of life after sex reassignment surgery compared to general populations (Lindqvist et al., 2017).
- (iv) Sex-reassigned people had a higher mortality rate, increased risk for suicide attempts and psychiatric inpatient care than general populations (Dhejne et al., 2011).

These patterns call for an examination of the factors which may drive trans people's mental health and quality of life. This is offered in section 3.

2.4 Transitioning and job satisfaction

Job satisfaction items such as enjoyment of tasks, personal performance, job rewards and relations with colleagues were found to be positively affected by transitioning (Drydakis, 2017b). It is suggested that disclosure of one's status may be related to increased job satisfaction and organizational commitment levels (Tatum, 2018; Law and Akers, 2011; Griffith and Hebl, 2002). Martinez et al. (2017) presented that the extent to which one has transitioned is related to higher job satisfaction. Drydakis (2017a) evaluated that transitioning to the desired sex may allow people to focus more on their job tasks and take higher satisfaction from their workplaces. Transitioning is perceived to relieve one of the stressors arising from having to conceal one's true gender identity and this might result in promoting more satisfactory relationships in the workplace (Brewster et al., 2014). In Drydakis (2017a) it is seen that after having reached the point of passing people did not generally experience the biased treatment, in and out of the workplace, to which they were subjected before or during transitioning (Sevelius, 2013). This pattern might also positively impact

on the lived workplace experiences and evaluations of trans people around job satisfaction and work situations (Drydakis, 2017b; Johansson et al., 2010).

Based on Kernis (2003), good mental health can stimulate greater self-awareness and personal growth. These traits can positively affect people's working lives and performances by boosting their engagement and commitment, resulting in increased job satisfaction (Azanza et al., 2013; Bamford et al., 2012; Edú and et al., 2012). Transitioning can equip people with productive life-solving skills that reward them in the workplace (Elliot and Thrash, 2002). Scottish Transgender Alliance and Stonewall Scotland (2012) and Morton (2008) found that after transitioning employees had better self-perception and could bring much more to their job, due to a better emotional state, than they did before transitioning. Areas of improvement were productivity, self-organization, innovative approaches to challenging problems, social relationships, communication skills and negotiation skills (Scottish Transgender Alliance and Stonewall Scotland, 2012; Morton, 2008). Similarly, Brewster et al. (2014) presented that transitioning has a positive impact on people's productivity and confidence.

In Drydakis (2017b) it was found that after transitioning the relationship between job satisfaction and mental health was stronger than before. It was seen that, since transitioning enabled people to address body dysphoria and reduced incidents of adverse mental health symptoms (Brewster et al., 2014, Brewster et al., 2012, Dhejne et al., 2016), and as long as good mental health traits boosted job satisfaction (Avey et al., 2011; Culbertson et al., 2010), the relationship between job satisfaction and mental health should be stronger after transitioning (Drydakis, 2017b). The proposed driving mechanism was that increases in happiness and optimism about the future could enable people to overcome stressful workplace incidents and become more effective, open-minded and comfortable about taking risks and dealing with workplace challenges (Culbertson et al., 2010; Luthans and Avolio, 2009; Lyubomirsky et al., 2005).

Moreover, in Drydakis (2017b) it was estimated that after transitioning the relationship between job satisfaction and life satisfaction was stronger than before. It was proposed that, since transitioning was associated with life satisfaction (Salvador et al., 2012; Parola et al., 2010), and as long as life satisfaction was related to job satisfaction (Qu and Zhao, 2012; Bowling et al., 2010), a stronger relationship between job satisfaction and life satisfaction could be expected to occur after transitioning (Drydakis, 2017b). It was proposed that as long as transitioning positively affected positive moods and self-esteem-oriented indicators these can result in increased motivation, workplace engagements and job satisfaction (Qu and Zhao, 2012; Bowling et al., 2010; Powell and Greenhaus, 2010).

The aforementioned studies point to a positive relationship between transitioning and job satisfaction. The assigned relationship can be presented through the Trans Curve (Figure 1). Studies

have shown that workplace protections for trans people positively affect their workplace outcomes, including job satisfaction (OECD, 2019; Tebbe et al., 2019; Webster et al., 2018; Drydakis, 2017a; 2017b; Köllen, 2016).

3. Social support for trans people

Although the literature gives high average percentages of satisfaction with gender reassignment procedures of 90% to 100% (breast augmentation, phalloplasty, subcutaneous mastectomy, vaginoplasty) (van de Grif et al., 2017; Horbach et al., 2015; Nelson et al., 2009; De Cuypere et al., 2005) myths and misrepresentation of scientific results on transitioning, and transition regrets dominate the media and enhance transphobic environments (Drydakis, 2017a; b). Michel et al. (2002) found a regret rate of less than 1% and a suicide rate a little over 1% among trans people.

Due to transphobia trans people are marginalised, experience higher rates of unemployment and poverty than cis people, and are exposed to high levels of rejection, assaults, hate crimes and even murder, as well as suffering from depression and experiencing suicidal thoughts related to lack of acceptance and internalization of stigma (OECD, 2019; Glynn et al., 2016; Köllen, 2016; Reisner et al., 2016; White Hughto et al., 2015; Norton and Herek, 2013; Sears and Mallory, 2011; Grant et al., 2010; Gerhardstein and Anderson, 2010). These adverse circumstances can negatively impact on trans people's identity, health, mental health and well-being (OECD, 2019; Köllen, 2016; Sevelius, 2013). Stigma prevention programmes and coping intervention strategies, and accessible and affordable transitioning resources have been found to hold promise for reducing the corresponding adverse health-related effects of transphobia (White Hughto et al., 2015; Glynn et al., 2016).

Transphobia and discrimination negatively affect people's self-evaluations (Schmitt et al., 2014; Wirth and Williams, 2009; Gerhardstein and Anderson, 2010). Gender affirmation is a significant source of social support (Sevelius, 2013). For trans people being affirmed in their identity by their families, school settings, workplace environments, health-care providers and government parties can positively affect their well-being (Bozani et al., 2019; Sevelius, 2013; Gerhardstein and Anderson, 2010; Kraemer, 2008). Bozani et al. (2019) found that trans people's self-esteem, self-respect and self-growth were enhanced by policy makers' positive actions to promote inclusivity. In addition, Bozani et al. (2019) found that due to positive actions trans people felt more accepted, valued and trusted by governments. It is suggested that social aid can positively affect trans people's psychological states (Bozani et al. 2019). Policies should aim to ensure that trans people can live their lives free from prejudice in order to maximise their potential and minimize misery before, during and after transitioning (Bozani et al., 2019; Drydakis, 2017a). Trans people begin to build self-evaluations through society's recognition of their worth, which in turn

gives them the confidence and ability to organize and undertake a life plan. If trans people's existence is not approved of in a society this feature can leave their self-evaluations weak and determine their progression and well-being (Bozani et al., 2019).

Studies have found that trans people occasionally feel that they are not allowed to be themselves, they are not what they say they were but what their identification documents say they are at birth (OECD, 2019; Drydakis, 2017a; b; 2016; Köllen, 2016). In many EU countries and US states trans people can change their identification documents only after undergoing sex reassignment surgery (Drydakis, 2017a). This implies that trans people have to undergo sterilization before their gender identity can be recognized, which constitutes a human rights violation. In reality, a large part of the trans community is happy to live their gender identity without surgical procedures and/or such medical treatments are beyond their financial means. Forced decisions to have sex reassignment surgery in order for a gender identity to be officially recognized can bring adverse health and mental health results. Policy makers should support trans people's life decisions. This can be achieved by allowing trans people to change gender identification on official documents without having to undergo sex reassignment surgery (Drydakis, 2017a).

In family and school settings there is evidence suggesting that when family and school support exists children experience a similar level of mental health and well-being to general populations (Extension Center for Family Development, 2017; Olson et al., 2016; de Vries et al., 2014; Kuvalanka et al., 2014; McGuire and Conover-Williams, 2010; Ryan et al., 2010; Brill and Pepper, 2008). Olson et al. (2016) found that trans children who had socially transitioned had no elevations in depression and did not differ from the general population in depression symptoms but did have slightly elevated anxiety relative to population averages. A chosen name, advocating for the child's safety, supportive educators, LGBT-inclusive curricula and facilities, comprehensive anti-bullying and anti-harassment policies and strategies which included specific protections for LGBT students were found to be related to greater student school engagement, self-esteem and general health status. They were also found to be related to decreased absenteeism, school-bullying, depression, substance abuse, suicidal ideation and future workplace bullying (Sidiropoulou et al. 2019; Extension Center for Family Development, 2017; Seelman et al., 2015; Greytak et al., 2013; Kosciw et al., 2012; McGuire and Conover-Williams, 2010; Ryan et al., 2010).

In the workplace explicit legal protections against discrimination on the grounds of gender identity should become a priority for policy makers (Drydakis, 2017a). Positive actions, anti-discrimination legislation and inclusive workplace environments have been found to reduce transphobia and its consequences (Tebbe et al., 2019; OECD, 2019; Webster et al., 2018; Drydakis, 2017a; b; 2016; Köllen, 2016; Posthuman et al., 2013; Croteau et al., 2008; Curtis and Dreachslin, 2008; Huffman et al., 2008; Clair et al., 2005; Ragins, 2008). Unfortunately, however, less than half

of US states have gender identity anti-discrimination legislation at work, and only 22 EU countries have a legal protection framework against gender identity discrimination at work (OECD, 2019; Webster et al., 2018; Drydakis, 2017a). Some firms have adopted formal written statements barring biased treatment based on gender identity and sexual orientation, offer same-sex benefits coverage, have LGBTI groups and inclusive HR practices in relation to recruiting and retaining LGBTI people, provide trans-inclusive health-oriented benefits and address gendered spaces. These have been found to experience a variety of positive workplace and organizational adjustments in relation to trans people's mental health, social interactions, performance and job satisfaction (Webster et al., 2018; Dwertmann et al., 2016; Ruggs et al., 2015; Rabelo and Cortina, 2014; Brewster et al., 2012; Law et al., 2011; Liddle et al., 2004).

The UK Government Equalities Office's (2015) guide to recruiting and retaining transgender staff provide a framework for employers. The guide highlights that firms should allow all staff to be themselves and that firms should promote a culture of equality, dignity and respect for trans people. Firms should ensure that HR has sufficient knowledge of trans issues and identify a point of contact in HR for any potential trans applicants, should they wish to make contact. Bozani et al. (2019) found that trans people self-esteem-oriented evaluations were positively affected by the guide. Firms should understand the business benefits of an inclusive workforce, which has to signal to trans people that there exists an organisational framework where they can be open about their gender identity and feel safe and comfortable enough to transition (Drydakis, 2017a). Such policies have been found to positively facilitate trans people's transition, and positively affect their well-being and workplace outcomes (OECD, 2019; Webster et al., 2018; Drydakis, 2017a; b; 2016; Köllen, 2016; Posthuman et al., 2013).

For policy makers the target should be trans children and adults after transitioning not experiencing worse well-being levels compared to the corresponding population. Based on the Trans Curve (Drydakis, 2017a) at the end of transitioning (point f), the levels of mental health, life satisfaction and job satisfaction for trans people should not be lower than those of cis people. Such an outcome would imply that all the aforementioned factors which reinforce transphobia are not in play, whilst all the aforementioned factors which boost transitioning's positive outcomes are in play. Some evidence exists to support the view that this is not a theoretical claim. As it was examined, in some cases the levels of psychopathology, depression and psychiatric disorders, as well as quality of life and quality of body image scores of trans people after transitioning, reach values comparable to those of cis people (Dhejne et al., 2016; Olson et al., 2016; Castellano et al., 2015; Heylens et al. 2014; de Vries et al., 2014). Unfortunately, however, this is not a universal pattern as trans people experience unique exclusions due to transphobia, which challenges their well-being (Reisner et al., 2016; White Hughto et al., 2015). Similarly, as it was examined, socio-

economic differences in employment and poverty levels between trans and cis people are widespread, mainly due to transphobia and exclusions (OECD, 2019; Köllen, 2016; Reisner et al., 2016). Policy actions are required in order to reduce the challenges and integrate trans people in societies (OECD, 2019; Drydakis, 2017a; Köllen, 2016; Dhejne et al., 2016).

Although transitioning has the capacity to bring well-being adjustments a transphobic environment may marginalise a trans person, resulting in poor well-being outcomes. The presented evidence suggests that transitioning's positive outcomes can be challenged by transphobic environments. It is suggested that two opposing effects may impact on trans people's well-being. The first is the positive adjustments in mental health, life satisfaction and job satisfaction due to transition. The second is transphobia's adverse impact on trans people lives, resulting in exclusions. At the same time transphobia can negatively affect transitioning, and vice-versa. Policy makers should consider the endogeneity of these relationships and their impact on trans people's integration and well-being. Policy makers should aim to facilitate trans people's transition and create cultures of inclusion in different settings, such as schools, workplaces, health-care services and justice. Legislation and positive actions should aim to ensure that trans people can live their lives free from prejudice, in order to maximise their potential.

4. Limitations

In this review the utilized studies were heterogeneous in terms of their data sets. Both cross-sectional and longitudinal studies were utilized. However, a distinction was not offered in the analysis. The cross-sectional studies enabled the provision of patterns of socio-economic and well-being indicators between trans and cis people without observing dynamic relationships. The longitudinal studies enabled better evaluation of the relationship between transitioning and well-being adjustments by observing the actual fluctuations of key well-being indicators for the same group of people. Both groups of studies were judged to be important in order to evaluate trans people's realities based on several available resources. A future systematic review might decide to compare whether the magnitudes of the patterns in cross-sectional studies are different from those of the longitudinal studies.

In the utilized sample of longitudinal studies only few provided comparisons of well-being differences (mental health and life satisfaction) between (i) trans people before transition and cis people and (ii) trans people after transition and cis people (Table 1). Such studies are of importance in order one to evaluate whether the well-being indicators of trans people after transitioning can reach values comparable to those of cis people. The factors which can drive significant and insignificant well-being differences between trans and cis people are of policy-making importance. It is suggested that more relevant studies are needed. Future studies should, at least, utilize scales

where cut-off points have been validated for general populations, to allow firm comparisons and evaluations. Unfortunately, no study in Table 1 was identified as providing comparisons of job satisfaction between (i) trans people before transition and cis people and (ii) trans people after transition and cis people. Future studies might consider examining trans people's workplace experiences before and after transitioning and offering comparisons with general populations. Such research would add to contemporary trends in organizational, HR and labour economics domains (Drydakis, 2017b; Köllen, 2016).

Future reviews should attempt to categorise the studies into further groups: qualitative and quantitative-oriented research. Such a distinction was not made in the current review. A focus on qualitative studies' results and evaluations could provide a well-informed explanation of the assigned patterns (Budge et al., 2012).

In the present review there was heterogeneity among the scales utilized to measure mental health, life satisfaction and job satisfaction. This feature on one hand enables researchers to suggest that positive adjustments seen with transitioning can be validated through different scales. On the other hand, this feature does not enable a well-informed meta-analysis to be conducted. A future study might consider grouping studies based on common scales and then performing a meta-analysis per scale. This would allow one to identify the factors which moderate well-being indicators. Also, it would enable one to evaluate whether males to females or females to males perform better in terms of transitioning adjustments (Parola et al., 2010). This issue was not examined in the present study. Neither was how sexual orientation moderated the relationships under examination (Smith et al., 2005). Also, the proposed meta-analytic approach would allow one to empirically evaluate how certain regions, and the identified, favourable and adverse predictors, moderate transition adjustments.

5. Summary

The aim of this review was to examine the relationships between transitioning and mental health, life satisfaction and job satisfaction. The available international evidence provided clear patterns. Changing one's appearance to match gender identity was found to be positively associated with mental health, life satisfaction and job satisfaction adjustments. These positive relationships can be presented through the Trans Curve (Drydakis, 2017a). It was found that transitioning positively affected the elements which form one's mental health, life satisfaction and job satisfaction, such as positivity towards life, optimism about the future, self-esteem, body image, enjoyment of tasks and personal performance. The determinants of the aforementioned well-being adjustments were found to be gender affirmation and support from family members, peers, schools and workplaces, stigma prevention programmes, coping intervention strategies, socioeconomic

conditions, anti-discrimination policies, positive actions, legislation including the ability to change one's sex on government identification documents without having to undergo sex reassignment surgery, hormone therapy, surgical treatments, high-quality surgical techniques, adequate preparation and mental health support before and during transitioning, and proper follow-up care. The study highlighted that transitioning's positive outcomes can be challenged by transphobic environments. Family rejection, violations of human and political rights in health care, employment, housing and legal systems, and gendered spaces, as well as internalization of stigma, can negatively affect trans people's lives and their integration into society. Policy makers should aim to facilitate trans people's transition and create cultures of inclusion in different setting. Legislation and positive actions should aim to ensure that trans people can live their lives free from prejudice, in order to maximise their potential.

References

- Ainsworth, T., and Spiegel, J. (2010). Quality of life of individuals with and without facial feminization surgery or gender reassignment surgery. *Quality of Life Research*, 19(7), 1019-1024.
- Avey, J. B., Reichard, R. J., Luthans, F., and Mhatre, K. H. (2011). Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance. *Human Resource Development Quarterly*, 22(2), 127–152.
- Azanzaa, G., Moriano, J. A., and Molero, F. (2013). Authentic leadership and organizational culture as drivers of employees' job satisfaction. *Journal of Work and Organizational Psychology*, 29(2), 45–50.
- Bamford, M., Wong, C. A., and Laschinger, H. (2012). The influence of authentic leadership and areas of work life on work engagement of registered nurses. *Journal of Nursing Management*, 21(3), 529–540.
- Bailey, L., Ellis, S. J., and McNeil, J. (2014). Suicide risk in the UK trans population and the role of gender transition in decreasing suicidal ideation and suicide attempt. *The Mental Health Review*, 19(4), 209-220.
- Bar, M. A., Jarus, T., Wada, M., Rechtman, L., and Noy, E. (2016). Male-to-female transitions: Implications for occupational performance, health, and life satisfaction. *The Canadian Journal of Occupational Therapy*, 83(2), 72-82.
- Bevan, E. T. (2015). *The psychobiology of transsexualism and transgenderism. A new view based on scientific evidence*. California: Praeger.
- Brewster, M. E., Velez, B. L., DeBlaere, C., and Moradi, B. (2012). Transgender individuals' workplace experiences: The application of sexual minority measures and models. *Journal of Counseling Psychology*, 59(1), 60–70.
- Brewster, M. E., Velez, B. L., Mennicke, A., and Tebbe, E. (2014). Voices from beyond: A thematic content analysis of transgender employees' workplace experiences. *Psychology of Sexual Orientation and Gender Diversity*, 1(2), 159–169.
- Brill, S., and Pepper, R. (2008). *The transgender child: A handbook for families and professionals*. San Francisco, California: Cleis Press.
- Bockting, W., Coleman, E., Deutsch, M. B., Guillamon, A., Meyer, I., Meyer, W., Reisner, S., Sevelius, J., and Ettner, R. (2016). Adult development and quality of life of transgender and gender nonconforming people. *Current Opinion in Endocrinology and Diabetes and Obesity*, 23(2), 188–197.

- Bouman, W. P., Claes, L., Marshall, E., Pinner, G. T., Longworth, J., Maddox, V., Witcomb, G., Jimenez-Murcia, S., Fernandez-Aranda, F., and Arcelus, J. (2016). Sociodemographic variables, clinical features, and the role of pre-assessment cross-sex hormones in older trans people. *The Journal of Sexual Medicine*, 13(4), 711-719.
- Bowling, N. A., Eschleman, K. J., and Wang, Q. (2010). A meta-analytic examination of the relationship between job satisfaction and subjective well-being. *Journal of Occupational and Organizational Psychology*, 83(4), 915–934.
- Boza, C., and Nicholson Perry, K. (2014). Gender-related victimization, perceived social support, and predictors of depression among transgender Australians. *International Journal of Transgenderism*, 15(1), 35-52.
- Bozani, V. Drydakis, N. Sidiropoulou, K. Harvey, B and Paraskevopoulou, A. (2019). Workplace Positive Actions, Trans People's Self-Esteem and Human Resources' Evaluations. *International Journal of Manpower* (in-press).
- Budge, S. L., Katz-Wise, S. L., Tebbe, N. E., Howard, A. S. K., Schneider, C. L., and Rodriguez, A. (2013). Transgender emotional and coping processes: Facilitative and avoidant coping throughout gender transitioning. *The Counseling Psychologist*, 41(4), 601–647.
- Budge, S. L., Orovecz, J. J., and Thai, L. J. (2015). Trans men's positive emotions: The interaction of gender identity and emotion labels. *The Counseling Psychologist*, 43(3), 404–434.
- Callan, E. (2014). *A qualitative analysis of transgender women's lived experiences of one-to-one psychosocial support in the context of presenting as female*. PhD Thesis. Leicester: University of Leicester.
- Cardoso da Silva, D., Schwarz, K., Fontanari, A.M.V., Costa, A.B., Massuda, R., Henriques, A.A., Salvador, J., Silveira, E., Elias Rosito, T., Lobato, M.I. (2016). Before and after sex reassignment surgery in Brazilian male-to-female transsexual individuals. *Journal of Sexual Medicine*, 13(6), 988-993.
- Castellano, E., Crespi, C., Dell'Aquila, R., Rosato, C., Catalano, V., Mineccia V, Motta G, Botto E, and Manieri C. (2015). Quality of life and hormones after sex reassignment surgery. *Journal of Endocrinological Investigation*, 38(12), 1373-1381.
- Cheng, Z., and Smyth, R. (2015). Sex and happiness. *Journal of Economic Behavior and Organization*, 112, 26–32.
- Clair, J. A., Beatty, J., and MacLean, T. (2005). Out of sight but not out of mind: Managing invisible social identities in the workplace. *Academy of Management Review*, 30(1), 78–95.
- Colizzi, M., Costa, R., Pace, V., and Todarello, O. (2013). Hormonal treatment reduces psychobiological distress in gender identity disorder, independently of the attachment style. *The Journal of Sexual Medicine*, 10(12), 3049–3058.

- Colton-Meier, S. L., Fitzgerald, K. M., Pardo, S. T., and Babcock, J. (2011). The effects of hormonal gender affirmation treatment on mental health in female-to-male transsexuals. *Journal of Gay and Lesbian Mental Health*, 15(3), 281-299.
- Costantino, A., Cerpolini, S., Alvisi, S., Morselli, P. G., Venturoli, S., and Meriggiola, M. C. (2013). A prospective study on sexual function and mood in female-to-male transsexuals during testosterone administration and after sex reassignment surgery. *Journal of Sex and Marital Therapy*, 39(4), 321-335.
- Costa, R., and Colizzi, M. (2016). The effect of cross-sex hormonal treatment on gender dysphoria individuals' mental health: A systematic review. *Neuropsychiatric Disease and Treatment*, 12, 1953-1966.
- Croteau, J. M., Anderson, M. Z., and VanderWal, B. L. (2008). Models of workplace sexual identity disclosure and management: Reviewing and extending concepts. *Group and Organization Management*, 33(5), 532-565.
- Culbertson, S. S., Fullagar, C. J., and Mills, M. J. (2010). Feeling good and doing great: The relationship between psychological capital and well-being. *Journal of Occupational Health Psychology*, 15(4), 421-433.
- Curtis, E. F., and Dreachslin, J. L. (2008). Diversity management interventions and organizational performance: A synthesis of current literature. *Human Resource Development Review*, 7(1), 107-134.
- Davis, S. A. and Meier, S. C. (2014). Effects of testosterone treatment and chest reconstruction surgery on mental health and sexuality in female-to-male transgender people. *International Journal of Sexual Health*, 26(2), 113-128.
- De Cuypere, G., Elaut, E., Heylens, G., Van Maele, G., Selvaggi, G., T'Sjoen, G., and Monstrey, S. (2006). Long-term follow-up: Psychosocial outcome of Belgian transsexuals after sex reassignment surgery. *Sexologies*, 15(2), 126-133.
- De Cuypere, G., TSjoen, G., Beerten, R., Selvaggi, G., De Sutter, P., Hoebeke, P., and Rubens, R. (2005). Sexual and physical health after sex reassignment surgery. *Archives of Sexual Behavior*, 34(6), 679-690.
- de Vries, A. L., McGuire, J. K., Steensma, T. D., Wagenaar, E. C., Doreleijers, T. A., and Cohen-Kettenis, P. T. (2014). Young adult psychological outcome after puberty suppression and gender reassignment. *Pediatrics*, 134(4), 696-704.
- Dhejne, C., Lichtenstein, P., Boman, M., Johansson, A. L. V., Langstrom, N., and Landen, M. (2011). Long-term follow-up of transsexual persons undergoing sex reassignment surgery: Cohort study in Sweden. *PloS One*, 6(2), 1-8.

- Dhejne, C., Van Vlerken, R., Heylens, G., and Arcelus, J. (2016). Mental health and gender dysphoria: A review of the literature. *International Review of Psychiatry*, 28(1), 44-57.
- Drydakis, N. (2016). Transgenderism, sex reassignment surgery and employees' job-satisfaction. In T. Köllen (Ed.), *Sexual orientation and transgender issues in organizations global perspectives on LGBT workforce diversity* (pp. 83–99). New York: Springer Publishing.
- Drydakis, N. (2017a). *Trans people, well-being, and labor market outcomes*. IZA World of Labor No. 386. Bonn: IZA World of Labor.
- Drydakis, N. (2017b). Trans employees, transitioning, and job satisfaction. *Journal of Vocational Behavior*, 98, 1-16.
- Dwertmann, D. J. G., Nishii, L. H., and van Knippenberg, D. (2016). Disentangling the fairness and discrimination and synergy perspectives on diversity climate: Moving the field forwards. *Journal of Management*, 42 (5), 1136–1168.
- Edú, S., Moriano, J. A., Molero, F., and Topa, G. (2012). Authentic leadership and its effect on employees' organizational citizenship behaviours. *Psicothema*, 24(2), 561–566.
- Elliot, A. J., and Thrash, T. M. (2002). Approach–avoidance motivation in personality: Approach and avoidance temperaments and goals. *Journal of Personality and Social Psychology*, 82(5), 804–818.
- Extension Center for Family Development (2017). *Mental health of transgender youth: The role of family, school, and community in promoting resilience*. Minnesota: University of Minnesota.
- Gerhardstein, K. and Anderson, V. (2010). There's more than meets the eye: Facial appearance and evaluations of transsexual people. *Sex Roles*, 62(5-6), 361-373.
- Gijs, L., and Brewaeys, A. (2007). Surgical treatment of gender dysphoria in adults and adolescents: Recent developments, effectiveness, and challenges. *Annual Review of Sex Research*, 18(1), 178-224.
- Glynn, T. R., Gamarel, K. E., Kahler, C. W., Iwamoto, M., Operario, D., and Nemoto, T. (2016). The role of gender affirmation in psychological well-being among transgender women. *Psychology of Sexual Orientation and Gender Diversity*, 3(3), 336-344.
- Green, R. (2005). Gender identity disorder. In B.J. Sadock, V.A. Sadock (Eds.), *Kaplan and Sadock's comprehensive textbook of Psychiatry*, Lippincott Williams and Wilkins, Baltimore (2005), pp. 1979-1991.
- Greytak, E. A, Kosciw, J. G., and Boesen, M. J. (2013). Putting the "T" in "resource": The benefits of LGBT-related school resources for transgender youth. *Journal of LGBT Youth*, 10(1-2), 45-63.

- Gómez-Gil, E., Zubiaurre-Elorza, L., de Antonio, E. D., Guillamon, A., and Salamero, M. (2014). Determinants of quality of life in Spanish transsexuals attending a gender unit before genital sex reassignment surgery. *Quality of Life Research*, 23(2), 669-676.
- Government Equalities Office (2015). *Recruiting and Retaining Transgender Staff: a Guide for Employers*. Manchester: Government Equalities Office.
- Gorin-Lazard, A., Baumstarck, K., Boyer, L., Maquigneau, A., Gebleux, S., Penochet, J., Pringuey, D., Albarel, F., Morange, I., Loundou, A., Berbis, J., Auquier, P., Lançon, C. and Bonierbale, M. (2012). Is hormonal therapy associated with better quality of life in transsexuals? A cross-sectional study. *The Journal of Sexual Medicine*, 9(2), 531–541.
- Gorin-Lazard, A., Baumstarck, K., Boyer, L., Maquigneau, A., Penochet, J. C., Pringuey, D., Albarel, F., Morange, I., Bonierbale, M., Lançon, C., Auquier, P. (2013). Hormonal therapy is associated with better self-esteem, mood, and quality of life in transsexuals. *Journal of Nervous and Mental Disease*, 201(11), 996–1000.
- Griffith, K. H., and Hebl, M. R. (2002). The disclosure dilemma for gay men and lesbians: “Coming out” at work. *Journal of Applied Psychology*, 87(6), 1191–1199.
- Grant, J. M., Mottet, L. A., Tanis, J., Herman, J. L., Harrison, J., and Keisling, M. (2010). National transgender discrimination survey report on health and health care. Washington DC.: National Center for Transgender Equality and the National Gay and Lesbian Task Force.
- Hess, J., Neto, R. R., Panic, L., Rübben, H., and Senf, W. (2014). Satisfaction with male-to-female gender reassignment surgery: Results of a retrospective analysis. *Deutsches Ärzteblatt International*, 111(47), 795–801.
- Heylens G., Verroken C., De Cock S., T’sjoen G., and De Cuypere G. (2014b). Effects of different steps in gender reassignment therapy on psychopathology: A prospective study of persons with a gender identity disorder. *Journal of Sexual Medicine*, 11(1), 119–126.
- Huffman, A. H., Watrous-Rodriguez, K. M., and King, E. B. (2008). Supporting a diverse workforce: What type of support is most meaningful for lesbian and gay employees? *Human Resource Management*, 47 (2), 237–253.
- Horbach, S. E. R., Bouman, M. B., Smit, J. M., Özer, M., Buncamper, M. E., and Mullender, M. G. (2015). Outcome of vaginoplasty in male-to-female transgenders: A systematic review of surgical techniques. *Journal of Sexual Medicine*, 12 (6), 1499–1512.
- Imbimbo, C., Verze, P., Palmieri, A., Longo, N., Fusco, F., Arcaniolo, D., and Mirone, V. (2009). A report from a single institute’s 14-year experience in treatment of male-to-female transsexuals. *The Journal of Sexual Medicine*, 6(10), 2736–2745.
- Johansson, A., Sundbom, E., Hojerback, T., and Bodlund, O. (2010). A five-year follow-up study of Swedish adults with gender identity disorder. *Archives of Sexual Behavior*, 39(6), 1429–1437.

- Keo-Meier, C. L., Herman, L. I., Reisner, S. L., Pardo, S. T., Sharp, C., and Babcock, J. C. (2015). Testosterone treatment and MMPI-2 improvement in transgender men: A prospective controlled study. *Journal of Consulting and Clinical Psychology*, 83, 143-156.
- Köllen, T (2016). *Sexual Orientation and Transgender Issues in Organizations: Global Perspectives on LGBT Workforce Diversity*. New York: Springer.
- Kosciw, J. G., Greytak, E. A., Bartkiewicz, M. J., Boesen, M. J., and Palmer, N. A. (2012). *The 2011 national school climate survey: The experiences of lesbian, gay, bisexual and transgender youth in our nation's schools*. New York: Gay, Lesbian and Straight Education Network.
- Kuvalanka, K. A., Weiner, J. L., and Mahan, D. (2014). Child, family, and community transformations: Findings from interviews with mothers of transgender girls. *Journal of GLBT Family Studies*, 10(4), 354-379.
- Kraemer, B., Delsignore, A., Schnyder, U., and Hepp, U. (2008). Body image and transsexualism. *Psychopathology*, 41(2), 96-100.
- Law, C. L., Martinez, L. R., Ruggs, E. N., Hebl, M. R., and Akers, E. (2011). Trans-parency in the workplace: How the experiences of transsexual employees can be improved. *Journal of Vocational Behavior*, 79, 710-723.
- Liddle, B. J., Luzzo, D. A., Hauenstein, A. L., and Schuck, K. (2004). Construction and validation of the lesbian, gay, bisexual, and transgendered climate inventory. *Journal of Career Assessment*, 12(1), 33–50.
- Lindqvist, E. K., Sigurjonsson, H., Möllermark, C., Rinder, J., Farnebo, F., and Lundgren T. K. (2017). Quality of life improves early after gender reassignment surgery in transgender women. *European Journal of Plastic Surgery*, 40(3), 223-226.
- Linley, P. A., Maltby, J., Wood, A. M., Osborne, G., and Hurling, R. (2009). Measuring happiness: The higher order factor structure of subjective and psychological wellbeing measures. *Personality and Individual Differences*, 47(8), 878–884.
- Lobato, M. I. I., Koff, W. J., Manenti, C., Seger, D., Salvador, J., Fortes, M., and Henriques, A. A. (2006). Follow-up of sex reassignment surgery in transsexuals: A Brazilian cohort. *Archives of Sexual Behaviour*, 35(6), 711–715.
- Luthans, F., Luthans, K.W., and Luthans, B. C. (2004). Positive psychological capital: Beyond human and social capital. *Business Horizon*, 41(1), 45–50.
- Luthans, F., and Avolio, B. J. (2009). The point of positive organizational behavior. *Journal of Organizational Behavior*, 30(2), 291–307.
- Lyubomirsky, S., King, L., and Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, 131(6), 803–855.

- Manieri, C., Castellano, E., Crespi, C., Di Bisceglie, C., Dell'Aquila, C., Gualerzi, A. and Molo, M. (2014). Medical treatment of subjects with gender identity disorder: The experience in an Italian public health center. *International Journal of Transgenderism*, 15(2), 53-65.
- Martinez, L. R., Sawyer, K. B., Thoroughgood, C. N., Ruggs, E. N., and Smith, N. A. (2017). The importance of being “Me”: The relation between authentic identity expression and transgender employees’ work-related attitudes and experiences. *Journal of Applied Psychology*, 102(2), 215-226.
- McGuire, J. K., and Conover-Williams, M. (2010). Creating spaces to support transgender youth. *Prevention Researcher*, 17(4), 17-20.
- McNeil, J. Bailey, L. Ellis, S. Morton, J. and Regan, M. (2012). *Trans mental health and emotional wellbeing study 2012*. Edinburgh: Scottish Transgender Alliance.
- Michel, A., Anseau, M., Legros, J., Pitchot, W., and Mormont, C. (2002). The transsexual: What about the future? *European Psychiatry*, 17(6), 353-362.
- Moreno-Perez, O., and de Antonio, I. E. (2012). Clinical practice guidelines for assessment and treatment of transsexualism. SEEN identity and sexual differentiation group. *Endocrinología y Nutrición*, 59(6), 367–382.
- Morton, J. (2008). *Transgender experiences in Scotland*. Edinburgh: Scottish Transgender Alliance.
- Murad, M. H., Elamin, M. B., Garcia, M. Z., Mullan, R. J., Murad, A., Erwin, P. J., and Montori, V. M. (2010). Hormonal therapy and sex reassignment: A systematic review and meta-analysis of quality of life and psychosocial outcomes. *Clinical Endocrinology*, 72(2), 214–231.
- Nelson, L., Whallett, E. J., and McGregor, J. C. (2009). Transgender patient satisfaction following reduction mammoplasty. *Journal of Plastic, Reconstructive and Aesthetic Surgery*, 62(3), 331–334.
- Norton, A. T., and Herek, G. M. (2013). Heterosexuals' attitudes toward transgender people: Findings from a national probability sample of U.S. adults. *Sex Roles*, 68 (11-12), 738–753.
- OECD (2019). *Society at Glance*. OECD Publishing, Paris.
- Olson, K. R., Durwood, L., DeMeules, M., and McLaughlin, K. A. (2016). Mental health of transgender children who are supported in their identities. *Pediatrics*, 137(3), 1-10.
- Parola, N., Bonierbale, M., Lemaire, L., Aghababian, V., Michel, A., and Lancon, C. (2010). Study of quality of life for transsexuals after hormonal and surgical reassignment. *Sexologies*, 19(1), 24–28.
- Posthuma, R. A., Champion, M. C., Masimova, M., and Champion, M. A. (2013). A high performance work practices taxonomy: Integrating the literature and directing future research. *Journal of Management*, 39(5), 1184–1220.

- Pavot, W. G., and Diener, E. (2008). The satisfaction with life scale and the emerging construct of life satisfaction. *Journal of Positive Psychology*, 3(2), 137–152.
- Powell, G., and Greenhaus, J. (2010). Sex, gender, and decision at the family → Work Interface. *Journal of Management*, 36(4), 1011–1039.
- Qu, H., and Zhao, X. (2012). Employees' work-family conflict moderating life and job satisfaction. *Journal of Business Research*, 65(1), 22–28.
- Rabelo, V. C., and Cortina, L. M. (2014). Two sides of the same coin: Gender harassment and heterosexist harassment in LGBTQ work lives. *Law and Human Behavior*, 38(4), 378.
- Ragins, B. R. (2008). Disclosure disconnects: Antecedents and consequences of disclosing invisible stigmas across life domains. *Academy of Management Review*, 33(1), 194–215.
- Reisner, S. L., Poteat, T., Keatley, J., Cabral, M., Mothopeng, T., Dunham, E., Holland, C., Max, R., and Baral, S. D. (2016). Global health burden and needs of transgender populations: a review. *Lancet*, 388(10042), Issue, 412–436.
- Ryan, C., Russell, S. T., Huebner, D., Diaz, R., and Sanchez, J. (2010). Family acceptance in adolescence and the health of LGBT young adults. *Journal of Child and Adolescent Psychiatric Nursing*, 23(4), 205–213.
- Ruggs, E. N., Martinez, L. R., Hebl, M. R., and Law, C. L. (2015). Workplace “trans”-actions: How organizations, co-workers, and individual openness influence perceived gender identity discrimination. *Psychology of Sexual Orientation and Gender Diversity*, 2(4), 404–412.
- Ruppin, U., and Pfäfflin, F. (2015). Long-term follow-up of adults with gender identity disorder. *Archives of Sexual Behavior*, 44(5), 1321–1329.
- Salvador, J., Massuda, R., Andreazza, T., Koff, W. J., Silveira, E., Kreische, F., and Lobato, M. I. R. (2012). Minimum 2-year follow up of sex reassignment surgery in Brazilian male-to-female transsexuals. *Psychiatry and Clinical Neurosciences*, 66(4), 370–372.
- Schmitt, T. M., Branscombe, R. N., Postmes, T., and Garcia, A. (2014). The consequences of perceived discrimination for psychological well-being: A meta-analytic review. *Psychological Bulletin*, 140(4): 921–948.
- Sears, D., and Mallory, C. (2011). Documented evidence of employment discrimination and its effects on LGBT people. Los Angeles, CA: The Williams Institute.
- Sevelius, J. M. (2013). Gender Affirmation: A Framework for Conceptualizing Risk Behavior among Transgender Women of Color. *Sex Roles*, 68(11-12), 675–689.
- Scottish Transgender Alliance and Stonewall Scotland (2012). *Changing for the better: How to include trans people in your workplace. A guide for employers*. Edinburgh: Scottish Transgender Alliance and Stonewall Scotland.

- Sidiropoulou, K. Drydak, N. Harvey, B. and Paraskevopoulou, A. (2019). Family support, school-age and workplace bullying for LGB people. *International Journal of Manpower* (in-press).
- Simonsen, R. K., Giral, A., Kristensen, E., and Hald, G. M. (2016). Long-term follow-up of individuals undergoing sex reassignment surgery: Psychiatric morbidity and mortality. *Nordic Journal of Psychiatry*, 70(4), 241-247.
- Smith, Y. L. S., Van Goozen, S. H. M., Kuiper, A. J., and Cohen-Kettenis, P. T. (2005). Sex reassignment: Outcomes and predictors of treatment for adolescent and adult transsexuals. *Psychological Medicine*, 35(1), 89–99.
- Schmidt, L., and Levine, R. (2015). Psychological Outcomes and Reproductive Issues among Gender Dysphoric Individuals. *Endocrinology and Metabolism Clinics of North America*, 44(4), 773-785.
- Tatum, A. K. (2018). Workplace climate and satisfaction in sexual minority populations: An application of social cognitive career theory. *Journal of Counseling Psychology*, 65(5), 618-628.
- Tebbe, E. A., Allan, B. A., and Bell, H. L. (2019). Work and well-being in TGNC adults: The moderating effect of workplace protections. *Journal of Counseling Psychology*, 66(1), 1-13.
- Trevor, M., and Boddy, J. (2013). Transgenderism and Australian social work: A literature review. *Australian Social Work*, 66(4), 555–570.
- van de Grift, T. C., Elaut, E., Cerwenka, S. C., Cohen-Kettenis, P. T., and Kreukels, B. P. C. (2017). Surgical satisfaction, quality of life, and their association after gender-affirming surgery: A follow-up study. *Journal of Sex and Marital Therapy*, 44(2), 138-148.
- Wirth, J. H. and Williams, K. D. (2009). They don't like our kind: Consequences of being ostracized while possessing a group membership. *Group Processes and Intergroup Relations*, 12(1): 111–127.
- Webster, J. R., Adams, G. A., Maranto, C. L., Sawyer, K. Thoroughgood, C. (2018). Workplace contextual supports for LGBT employees: A review, meta-analysis, and agenda for future research. *Human Resource Management*, 57(1), 193-210.
- Weigert, R., Frison, E., Sessieq, Q., Al Mutairi, K., and Casoli, V. (2013). Patient satisfaction with breasts and psychosocial, sexual, and physical well-being after breast augmentation in male-to-female transsexuals, *Plastic and Reconstructive Surgery*, 132(6), 1421-1429.
- Weyers, S., Elaut, E., De Sutter, P., Gerris, J., T'Sjoen, G., Heylens, G., De Cuypere, G., Verstraelen, H. (2009). Long-term assessment of the physical, mental, and sexual health among transsexual women, *The Journal of Sexual Medicine*, 6(3), 752-760.

- White Hughto, J. M. and Reisner, S. L. and Pachankis, J. E. (2015). Transgender stigma and health: A critical review of stigma determinants, mechanisms, and interventions. *Social Science and Medicine*, 147, 222-231.
- White Hughto, J. M. and Reisner, S. L. (2016). A systematic review of the effects of hormone therapy on psychological functioning and quality of life in transgender individuals. *Transgender Health*, 1(1), 21-31.

Table 1. Studies on trans people's mental health and quality of life, before and after medical interventions and comparisons with general populations

Studies	Aim	Methodology	Results
Lindqvist et al. (2017)	To assess the quality of life of trans women undergoing gender reassignment surgery.	Surveys distributed pre-operatively, as well as, 1, 3, and 5 years post-operatively.	Gender reassignment surgery led to improvements in general well-being as a trend but over the long-term. Trans women generally found to have a lower quality of life compared to general populations. Quality of life decreased slightly in line with that of general populations.
van de Grift et al., (2017)	To examine the outcomes of gender reassignment surgery of trans men and women and associations between postoperative (dis)satisfaction and quality of life.	Surveys distributed 4 to 6 years after first clinical contact.	Postoperative satisfaction was 94% to 100%. Six percent of the study's participants reported dissatisfaction and/or regrets, which were associated with preoperative psychological symptoms or self-reported surgical complications. Satisfied trans people's quality of life scores were found to be similar to reference values; dissatisfied or regretful trans people's scores were lower to reference values.
Keo-Meier et al. (2015)	To investigate the short-term effects of testosterone treatment on psychological functioning in trans men.	Surveys distributed to patients at presentation, as well as, 3 months after testosterone initiation.	Testosterone treatment resulted in increased levels of psychological functioning on multiple domains in trans men relative to general populations. Reductions in hypochondria, depression, hysteria, and paranoia, and increases in masculinity-femininity scores were observed.
Heylens et al. (2014)	To examine how gender reassignment surgery affects psychopathology and other psychosocial factors of trans men and women.	Surveys distributed to patients at 3 different points of time: at presentation, after the start of hormonal treatment, and after sex reassignment surgery.	Significant decreases were found in anxiety, depression, interpersonal sensitivity, and hostility, especially after the initiation of hormone therapy. Overall psychoneurotic distress scores resembled those of general populations after hormone therapy was initiated.

de Vries et al. (2014)	To examine how gender reassignment surgery affects the psychological functioning of young adult trans men and women who had received puberty suppression during adolescence.	Surveys distributed to patients at 3 different times: before the start of puberty suppression, when cross-sex hormones were introduced, and at least 1 year after gender reassignment surgery.	After gender reassignment surgery, gender dysphoria was alleviated and psychological functioning steadily improved. Well-being level was similar to or better than general populations. Improvements in psychological functioning were positively correlated with postsurgical subjective well-being.
Collizi et al. (2013)	To examine the presence of psychobiological distress and insecure attachment in trans men and women and to evaluate their stress levels with reference to the hormonal treatment and the attachment pattern.	The cortisol levels and perceived stress before starting the hormonal therapy and after about 12 months were measured.	When treated with hormone therapy, trans people reported significantly lower cortisol awakening response, falling within the normal range for cortisol levels. Treated trans people had lower perceived stress, with levels similar to general populations. Moreover, treated trans people did not express significant differences in cortisol awakening response and perceived stress by attachment.
Dhejne et al. (2011)	To estimate mortality, morbidity, and criminal rate after surgical sex reassignment of trans people.	Population-based matched cohort study.	The overall mortality for sex-reassigned people was higher during follow-up than for general populations. Also, sex-reassigned people had an increased risk for suicide attempts and psychiatric inpatient care than general populations.
