Examining predictors of minority stress among LGBTQ+ individuals.

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ABSTRACT

Previous literature investigating the experiences of those who identify as LGBTQ+ suggests that these individuals face a number of mental health disparities when compared to their heterosexual and/or cisgender counterparts; this has been attributed to minority stress. This research study aims to investigate the predictive relationship between minority stress levels and stigma consciousness (expectations of being met with discrimination due to a stigmatised minority identity) and identity distress as proximal stressors along with sense of belonging to the LGBTQ+ community and self-esteem as protective factors. One hundred and eight participants recruited through volunteer sampling completed online questionnaires regarding these four predictors and their levels of minority stress. Due to multicollinearity, the self-esteem and identity distress measures were removed from further analysis. Results indicated that stigma consciousness was a strong predictor of minority stress levels while sense of belonging did not significantly protect individuals from experiencing minority stress. Results highlight the fact that more needs to be done to reduce levels of stigma consciousness among those who identify as LGBTQ+, ways to do this are discussed.

KEY WORDS:	**LGBTQ**	**MINORITY STRESS**	**SENSE OF BELONGING**	**STIGMA CONSCIOUSNESS**	**PROXIMAL STRESSORS**

Introduction

The Office of National Statistics (2019) states that 6.8% of people in the UK have a sexual orientation that differs from heterosexuality. Moreover, the Government Equalities Office (2018) estimate that around 200,000 to 500,000 people in the UK have a gender identity alternative to the sex assigned to them at birth. Sexual orientation is defined as an identity component consisting of an individual's emotional, romantic and sexual attraction to others; this definition also covers both behaviours and an affiliation to social groups that occur due to this attraction (APA, 2015). Examples of sexual orientations include heterosexual, lesbian, bisexual, gay, pansexual and asexual. Others who experience same-sex attractions may identify as queer, a term reclaimed by those who choose to reject conventional norms regarding sexuality and gender (Baptiste-Roberts et al., 2017). Alternatively, some may choose not to label their sexuality at all (APA, 2008).

Gender identity, then, refers to an individual's inherent sense of being a man or a woman (or alternative gender identities such as non-binary and genderqueer) (APA, 2015). Those who identify as transgender or gender non-conforming, have an identity that is not congruent with the sex they were assigned to at birth whereas those who are cisgender have a gender identity that is congruent with the sex they were assigned at birth (APA, 2015). Although gender identity and sexual orientation are two separate concepts, it is important to acknowledge that historically these constructs are intertwined in a socio-political sense. Sexual/gender identities that differ from those that are heterosexual/ cisgender both transgress traditional gender norms and heteronormative ideals respectively (APA, 2011).

Throughout extensive literature, specific terminology is used to refer to these people. 'LGBTQ+' is an umbrella term referring to those who identify as lesbian, gay, bisexual, transgender, queer, and a number of other sexual and gender identities. Across the world, in places like Russia, there are widely held negative attitudes towards those who identify as LGBTQ+. Those defying heteronormativity are viewed as 'diseased' and in need of 'treatment' (Chernysh, 2010); this means that individuals are often persecuted due to their LGBTQ+ identity in these parts of the world. In western parts of the world, there have been relatively recent social changes such as the Marriage (Same Sex Couples) Act 2013, which saw the legalisation of same-sex marriage. Social changes such as this one suggest an increase in egalitarian attitudes and a shift towards equality in western societies (Pitoňák, 2017). Despite these changes, research suggests that there are still clear differences in the experiences of those who identify as LGBTQ+ and those who do not.

Recent research has found significant mental health disparities between LGBTQ+ people and their heterosexual peers. For example, LGB people in the UK have been found to be at higher risk of mental disorder (Dilley et al., 2010; Wallace et al., 2011), lower wellbeing (Semlyen et al., 2016), increased psychological distress (Chae and Ayala, 2010), suicide ideation (Conron et al., 2010), deliberate self-harm and substance misuse (King et al., 2008) than their heterosexual counterparts. Other research suggests they are more likely to smoke cigarettes and consume unhealthy amounts of alcohol, risk factors attributable to poorer mental health (Hagger-Johnson, 2013).

Although research on those who identify as transgender in the UK is minimal, there is a paucity of research suggesting that rates of psychological distress, anxiety and

depression are disproportionately higher in transgender people than cisgender people (Bockting et al., 2013; Fredriksen-Goldsen et al., 2014). General health is poorer among the transgender population, too (Fredriksen-Goldsen et al., 2011). Ellis et al. (2015) found that 84% of transgender people who responded to their survey had experienced suicide ideation and over half had experienced anxiety and depression. Additionally, Grossman and D'Augelli (2007) found that of the 55 transgender people they spoke to, over a quarter had attempted suicide, all citing being transgender as the reason for the suicide attempt.

One explanation of the increased psychological distress and mental health disparities experienced by LGBTQ+ people is outlined in Meyer (2003)'s Minority Stress Theory (MST). Meyer (2003) conceptualised minority stress as the excess stress that individuals belonging to stigmatized social groups experience due to their disadvantaged, minority status. It is considered as chronic and based on social norms that have arisen through societal structures and institutions that promote stigmatising attitudes. Individuals acquire these attitudes and begin to understand social norms from an early age and these attitudes often persist throughout life due to the strength of early socialization experiences and their influence on psychological processes (Meyer, 2003).

MST says stress mediates the relationship between these social conditions and the mental health disparities that LGBTQ+ people face (Meyer, 2003). The notion of minority stress is an extension of the social stress construct, which revolves around the idea that the social conditions of the individual's environment and not just 'personal events' can be a source of stress, negatively affecting the mental and physical health of the individual (Meyer et al., 2008). The unique discrimination and prejudice that LGBTQ+ individuals face has been acknowledged to form a stressful social environment and widely reported inequalities and excess stress have been attributed to these social conditions (Cochran et al., 2003)

Meyer's theory consists of two types of stressors unique to minority groups that make up the concept of minority stress: distal and proximal minority stressors. These stressors are in addition to general stressors which all people experience due to adverse circumstances in their environment. Distal stressors are considered independent of the individual's personal identity or self-concept and instead focus on objective events and experiences that promote stigma such as heteronormative environments and acts of homophobia (Pitoňák, 2017) for example, minority-motivated violence (Meyer et al., 2008). These circumstances and events are suggested to be highly influential on an individual's internal experiences and are linked to proximal stressors (Meyer, 2003). Proximal stressors on the other hand are conceptualised as internal processes that occur through an individual's minority identity and the perceptions that surround this; these proximal stressors are thought to be influenced through exposure to distal stressors (Williams et al., 2017).

One concept Meyer originally suggested to be a proximal stressor implicated in the minority stress perspective is stigma consciousness. Stigma refers to negative or stereotypical views applied to individuals or groups of people involving their behaviour or their traits as inferior to, and distinct from, societal values and social norms (Dudley, 2000). Stigma consciousness is a term that refers to individual differences in the extent to which members of these marginalised groups become pre-occupied with their stigmatised social status (Pinel, 1999). Pinel states that levels of stigma consciousness can be reliable reflections of past experiences of

stigma (and discrimination due to this stigma) and can persist even in the absence of a direct threat, with the same cognitive outcomes.

Research suggests that those who are high in stigma consciousness are more inclined to believe that they cannot 'escape' these stereotypes. They are suggested to believe that those who are not part of this social group (members of the 'out-group' who, in this context, are individuals that identify as heterosexual and cisgender) are likely to use these stereotypes to govern social interactions with them (Mosley and Rosenberg, 2007). They are concerned that these stereotypes pervade all of their life experiences and expect discrimination as a result, even when they do not view these stereotypes as accurate representations of themselves (Pinel, 1999). Pinel also found that those who were high in stigma consciousness were more likely to avoid 'stereotype-relevant' situations, limiting their experiences.

High levels of stigma consciousness have been linked with a range of detrimental outcomes which are likely to be internally stressful including interference with achievement and involvement, increased worry about others' perceptions of them, a more negative self-focus and an increased likelihood of perceiving any discrimination experienced by their minority group as personally aimed at them (Pinel, 1999; Mosley and Rosenberg, 2007; Spruyt et al., 2015). The fact that those who are high in stigma consciousness more readily perceive discrimination towards their group as personally directed towards them is particularly significant. As discrimination has been proposed to cause a stressful social environment, those who are more perceptive to it may be more likely to be affected by minority stress.

Another concept Meyer (2003) suggested to be a proximal stressor that can be applied to MST is identity distress (often referred to as internalised homophobia or transphobia). Internalised homophobia occurs when an individual with a non-heterosexual identity directs negative social attitudes about their sexuality inwardly (Meyer, 1995). Similarly, transgender people may experience internalised transphobia where they inwardly reflect cis-normative social attitudes regarding gender and feel negatively about themselves due to not conforming to these ideas (Scandurra et al., 2018).

Cross-culturally, internalised homophobia has been linked to a number of negative mental health outcomes and issues with psychological wellbeing (Xu, et al., 2017; Yanykin and Nasledov,2017) including depression and anxiety (Igartua et al., 2003), suicide ideation, self-harm and substance use disorders (DiPlacido, 1998; Williamson, 2000) along with difficulties with intimate relationships (Meyer and Dean, 1998). Internalised transphobia has also been found to have various negative outcomes such as increased risk of suicide (Perez-Brumer et al., 2015), increased perceived stress, depressive symptoms and symptoms linked to social anxiety (Testa et al., 2015).

Identity distress has also been found to be linked to concealment of one's own identity among the current population (Hoy-Ellis, 2016). This concealment may appear to have short-term benefits due to being a less obvious target to discrimination, however in the long term this concealment is linked to lower wellbeing and increased psychological distress (Rawls, 2004).

The internalisation of these negative ideas and attitudes is suggested to influence a number of psychological processes such as coping strategies and self-concept (Meyer, 1995). It is through these negative influences on self-concept and the

depleted ability to cope with stress (even when direct 'threats' are not present) that are thought to contribute towards minority stress thus having a detrimental impact on psychological wellbeing and mental health (Meyer, 1995). From this, it can be suggested that those with higher levels of identity distress will experience higher levels of minority stress.

Despite the suggested detrimental effects of these minority-related proximal stressors, MST suggests that a range of psychosocial resources may act as protective factors that buffer these negative effects and help individuals cope with minority stressors (Meyer, 2003). Meyer (2003) proposed that community cohesion and group support within an individual's minority community may counteract the adverse outcomes of minority stress. These two factors are both closely involved in the conceptualisation of sense of belonging. Sense of belonging is defined as an experience of genuine personal connection to, and cohesion with, a group or system whereby involvement with the group by the individual is valued (Hagerty et al., 1992). Generally speaking, sense of belonging has been found to have a number of positive effects; Newman et al. (2007) found that individuals who experience a sense of belonging are healthier overall. Additionally, sense of belonging has been suggested to act as a buffer between loneliness and depression (Baskin et al., 2010). Conversely, a low sense of belonging (which occurs in cases of social exclusion) is described as painful and linked to both anxiety and depression (MacDonald and Leary, 2005).

In reference to the current population, there is a range of studies that suggest positive and protective effects of sense of belonging in terms of coping with minority stress. Fingerhut et al. (2010) indicates that individuals who feel like they have a place within the LGBTQ+ community are more likely to demonstrate higher levels of psychological well-being. This supports the idea that sense of belonging and a connection to one's minority group acts to reduce detrimental effects of minority stress. Additionally, Hanley and McLaren (2015) have found among lesbians that a strong sense of belonging to the LGBTQ+ community moderated the relationship between identity and symptoms of depression (with a strong sense of connectedness weakening this relationship).

However, contrasting research has suggested that an affiliation with the LGBTQ+ community could increase the risk of direct discrimination. This happens through a person being more readily identifiable as LGBTQ+ (Badgett, 1995). It can be said then, that although visibility may cause an individual to experience excess stress, most research demonstrates that a sense of belonging to this community may act as a buffer and reduce the impact of minority stress.

Another psychosocial resource that has previously been suggested to be a protective factor against minority stressors is self-esteem (Thoits, 2010). Self-esteem is regarded as a favourable or unfavourable attitude or opinion of the self (Rosenberg, 1965). More recently, Neff (2011) refers to self-esteem as an individual's sense of worth and the degree to which an individual values themselves. Broadly speaking, research suggests that self-esteem is negatively correlated with anxiety and anxiety-related defence behaviour (Pyszczynski et al., 2004) and is positively correlated with happiness (Lyubomirsky & Lepper, 2006), psychological quality of life (Drosdzol et al., 2010), good mental and physical health and ability to cope with stress (Pyszczynski et al., 2004).

In terms of minority stress, research has suggested that self-esteem mediates the effects of minority-related discrimination and victimization on psychiatric outcomes and psychological distress (Herschberger and D'Augelli, 1995; Woodford et al., 2014). With regard to the current population, high self-esteem has been associated with better mental health outcomes in gay men (Walters and Simoni, 1993). This is supposedly due to the enhanced ability to cope with stressors; this ability being linked to having high levels of self-esteem (Walters and Simoni, 1993). This demonstrates how high self-esteem (and the psychological attributes which are linked to self-esteem) can potentially act as a buffer to minority stress in the face of minority-related discrimination. Despite this finding, it is reasonable to say that research into the self-esteem of those who identify as LGBTQ+ is limited (Vosvick and Stem, 2019).

Very few research studies focus specifically on proximal stressors within the MST framework concerning the LGBTQ+ community. In terms of the population at hand, few studies are inclusive and investigate the experiences of the LGBTQ+ community as a whole. Many studies focus primarily on the sexual orientation element of the LGBTQ+ community and there are fewer studies concerning gender identity and those who identify under the 'transgender umbrella' despite the fact that sexual orientation and gender identity are connected. This research study aims to be inclusive and to explore the experiences of a range of identities that are not heterosexual or cisgender.

Additionally, the original theory was posited over fifteen years ago. Between then and the present day there have been a number of social changes regarding the LGBTQ+ community, such as the legalisation of gay marriage as just one example, which has led to the belief that more tolerant attitudes are widespread and that we are experiencing a shift towards equality (Pitoňák, 2017). These social conditions are suggested to be highly influential to proximal stressors (Meyer, 2003) and therefore if social changes have occurred, the role these proximal stressors play may have changed since then too. However, mental health disparities between those who are LGBTQ+ and those who are heterosexual/cisgender still occur in the present day (Fredriksen-Goldsen et al., 2014; Semlyen et al., 2016). From this, it can be suggested that minority stress theory may still be relevant today despite the suggestion that discriminatory attitudes are less prevalent (Pitoňák, 2017).

This study aims to explore this idea and to investigate whether the minority stress experiences of those who identify as LGBTQ+ in the current social climate can be attributed to the same proximal stressors as Meyer (2003) originally suggested. This research study seeks to investigate the role of the proximal stressors identity distress and stigma consciousness and their contribution to levels of minority stress experienced by those who identify as LGBTQ+. The study also aims to explore the role of sense of belonging and self-esteem in protecting individuals from increased levels of minority stress. The hypotheses for this study are:

Hypothesis 1: Higher levels of stigma consciousness will significantly predict higher levels of minority stress.

Hypothesis 2: Higher levels of identity distress will significantly predict higher levels of minority stress.

Hypothesis 3: Higher self-esteem will significantly predict lower levels of minority stress.

Hypothesis 4: Higher sense of belonging will significantly predict lower levels of minority stress.

Method

Design

A non-experimental correlational study was conducted, using a linear regression analysis. The study consisted of four predictors: stigma consciousness, identity distress, sense of belonging and self-esteem and the criterion, which was minority stress.

Participants

One hundred and eight self-identified LGBTQ+ participants were recruited to take part in the study. They were recruited through a volunteer sample via advertisement of the study on both social media and the Manchester Metropolitan psychology online participation pool (Appendix 8) and through word of mouth. Tabachnick et al.'s (2013) rule states that the minimum required sample size for this study is 108 (N ≥ 104 +4).

Materials

This study consisted of five measures. The first measure being the Sense of Belonging Instrument-Psychological State (SOBI-P; Hagerty and Patusky, 1995) which had been adapted to apply to the population being studied (the LGBTQ+ community). The scale comprised of 18 items on a 4-point Likert scale (strongly disagree to strongly agree) where lower scores indicated a higher sense of belonging; examples of statements used include 'I feel like an outsider in the LGBTQ+ community' and 'I am just not sure if I fit in with the LGBTQ+ community' (Appendix 3).

The second measure used was Rosenberg's Self-esteem Scale (RSE; Rosenberg, 1965) which consisted of 10 statements on a 4-point Likert scale (strongly disagree to strongly agree) where higher scores indicated higher levels of self-esteem. It was made up of statements such as 'On the whole, I am satisfied with myself' and 'I take a positive attitude toward myself' (Appendix 4).

An adapted version of the Stigma Consciousness Questionnaire (SCQ; Pinel, 1999) was also used within this study (worded to apply to being LGBTQ+). It consisted of 10 items, on a 7-point Likert scale (strongly disagree to strongly agree) where higher scores indicated higher levels of stigma consciousness; examples of the statements used include 'Most heterosexual/ cisgender people have a problem viewing LGBTQ+ people as equals' and 'My being LGBTQ+ doesn't influence how heterosexual/ cisgender people act with me' (Appendix 5).

Another measure used within the study was the LGBTQ Identity Distress Scale (Wright and Perry, 2006). This measure was reworded to be inclusive of all of those who identify under the LGBTQ+ umbrella and was used to assess levels of internalised homophobia and transphobia (distress caused by identity). It comprised of 7 statements on a 5-point Likert scale (strongly agree to strongly disagree) along with the option of 'prefer not to say' (due to the sensitive nature of some of the questions). Some examples of the questions used include 'I feel uneasy around

people who are very open in public about being LGBTQ+' and 'I often feel I am ashamed that I am LGBTQ+' (Appendix 6).

Finally, the Daily Heterosexist Experiences Questionnaire (Balsam et al., 2013) was used to assess the criterion variable of minority stress. It consisted of 50 items that are LGBTQ+ minority-specific experiences that those in the LGBTQ+ community may have faced. Responding only to experiences that had personally affected individuals in the past 12 months, participants rated how much these experiences had affected them using a 5-point Likert scale ranging from 'it happened, and it didn't bother me all' to 'it happened, and it bothered me extremely'; higher scores indicated higher levels of minority stress. Examples of items include 'difficulty finding LGBTQ+ friends' and 'pretending that you are heterosexual' (Appendix 7).

Procedure

Individuals who were interested in taking part in the research study were asked to read the participant information sheet (Appendix 9) and to fill out the consent form (Appendix 10). They were also asked to create a unique code made up of the date of the month they were born, the last two letters of their postcode and the last two digits of their phone number in case they wished to remove their data. Prior to the presentation of the five scales, participants were asked demographic information including their sexuality, gender and age, in order to 'screen-out' those who did not fit the criteria of the study (those who were not LGBTQ+ and those who were under the age of eighteen). Participants were also asked their location in order to gage an idea of the social climate the individual experiences. They were then invited to respond to the five online self-report questionnaires that were administered via Qualtrics. After the questionnaires had been completed, participants were subject to a full debrief, detailing the true aims of the study (Appendix 11).

Ethical considerations

Ethical approval was gained from the Department of Psychology Research Ethics Committee at Manchester Metropolitan University (Appendix 1) prior to the study and consent was obtained after participants had read the participant information sheet. However, participants were slightly deceived. They were informed that the study was exploring heterosexist experiences however, they were not explicitly informed that the study would specifically look at minority stress levels. This mild deception was justified as informing the participants about the true nature of the study may have elicited both social desirability bias and demand characteristics. Participants received a full debrief following this mild deception and therefore this deception was ethically sound. Participants were informed that their data was anonymous and would be kept confidential. They were also informed of their right to withdraw their data (as long as they could produce their unique identifier code). As some of the topic areas covered within the study are of a sensitive nature, participants were provided with the contact details for two LGBTQ+ charities that are able to offer support in the event of distress.

Results

Prior to analysis, data was downloaded from Qualtrics in order to be analysed using IBM SPSS Statistics 25. Reverse scores were calculated for items that required this

and total scores were computed. In addition, z-scores for all variables were calculated so that scores were standardised.

Descriptive statistics

Descriptive analyses were conducted and means and standard deviations were calculated for sense of belonging (*M* = 45.31, *SD*=13.03), self-esteem (*M* =24.55, *SD* =5.20), stigma consciousness (*M* = 45.49, *SD* = 8.68) and identity distress (*M* =15.62, *SD* =5.33).

Reliability analysis

The internal consistency of each measure was analysed using Cronbach's Alpha. The results indicated that the reliability for the stigma consciousness scale was satisfactory, α = .75, and that reliability for the sense of belonging, self-esteem, identity distress and minority stress scales were high, α = .95, α = .87, α = .81 and α = .85 respectively.

Regression analysis

All assumptions for regressions were checked (independent errors, multicollinearity, homoscedasticity, absence of outliers and linearity of data). An analysis of standard residuals indicated that the data contained six outliers (with standardised residual values over 3.00). These participants were removed so that the data met the absence of outliers assumption (Std. Residual Min= -1.70, Std. Residual Max= 2.95). Bivariate correlation between the four predictors was carried out prior to analysis to test for multicollinearity. Results demonstrated that self-esteem was significantly correlated with sense of belonging $r(108) = .43$, $p < .001$, stigma consciousness, $r(108) = .31$, $p = .001$ and identity distress, $r(108) = .37$, $p < .001$. Furthermore, the identity distress and sense of belonging scales were highly correlated, $r(108) = .47$, $p < .001$). As such, self-esteem and identity distress were removed.

Tests of collinearity conducted following the removal of self-esteem and identity distress indicated that the data met the assumption of absence of multicollinearity (sense of belonging, Tolerance = .99, VIF = 1.01; stigma consciousness, Tolerance, .99, =VIF = 1.01). The data also met the independent errors assumption (Durbin Watson = 1.68) and both assumptions of homoscedasticity and linearity, as demonstrated in the scatterplot of standard residuals.

A linear regression analysis was conducted in order to test the degree to which sense of belonging and stigma consciousness predicted minority stress in those who identify as LGBTQ+. The 'enter' method was utilized and demonstrated a significant model ($F(2,99) = 13.02$, $p < .001$). The relationship between variables was moderate ($R = .46$) and the model could be used to explain around 20.8% (R^2adj = 19.2%) of the variance in the minority stress scores. Of the variables, stigma consciousness was the strongest predictor of minority stress among those in the LGBTQ+ community, β = .43, $t(2) = 4.78$, $p < .001$. Sense of belonging did not significantly predict minority stress, β = .12, $t(2) = 1.35$, $p = .18$ (See table 1.).

These findings demonstrate that stigma consciousness is the only significant factor that predicts levels of minority stress among those who identify as LGBTQ+. The results suggest that the more conscious of stigma an individual is (i.e., the more they

expect to be met with discrimination due to their identity) the more likely they are to experience, and be negatively affected, by minority stress. Sense of belonging was not found to significantly predict (i.e., positively reduce) levels of minority stress.

Table 1. Summary of regression analysis for predicting minority stress scores.

Variable	*B*	*SE B (std. Error)*	β *(beta score)*
Constant	-.18	.06	
Sense of belonging	.08	.06	.12
Stigma consciousness	.29	.06	.43**
R^2 = .21			
F= 13.02			

Note. * indicates p < .05; ** indicates p < .001

Discussion

The results of this study indicated that stigma consciousness significantly predicted minority stress levels of those who identify as LGBTQ+. This finding supported hypothesis 1 and suggests that those who are more expectant of being met with negative attitudes and discrimination due to their identity, are more likely to experience higher levels of minority stress. This finding is consistent with Meyer (2003)'s original minority stress theory that found a positive relationship between stigma consciousness and minority stress levels. The results also indicated that sense of belonging did not significantly predict minority stress levels of those who identity as LGBTQ+, which did not support hypothesis 4.

The finding that stigma consciousness significantly predicted minority stress was not a surprising result as it was consistent with a range of previous research. Previous research suggests that high levels of stigma consciousness can have detrimental effects for individuals including higher levels of worry and stress about how others perceive them and increased likelihood of perceiving generalised discrimination towards the minority group (for example indirect threats and indirect discrimination) as personally aimed at them (Pinel, 1999; Mosley and Rosenberg, 2007;Spruyt et al., 2015). As discrimination has been proposed to cause stress, those that are more perceptive towards general discrimination aimed at the minority group of which they belong to (as well as direct 'threats' or acts of discrimination) could arguably experience greater levels of discrimination and therefore be more likely to be affected by minority stress; this may explain the results of the current research study.

The finding that sense of belonging did not significantly protect individuals from minority stress was an unexpected finding. A plethora of previous research suggests that sense of belonging provides several benefits both broadly, such as being healthier overall (Newman et al., 2007) and regarding the LGBTQ+ community in relation to mediating negative outcomes associated with a minority identity (Fingerhut et al., 2010; Hanley and McLaren, 2015).

This finding could be explained by the contrasting ideas presented in previous literature. A sense of belonging in the LGBTQ+ community has previously been found to have a number of positive and protective outcomes (Fingerhut et al., 2010; Hanley and McLaren, 2015). However, Badgett (1995) suggests that the emergence of the LGBTQ+ community has meant that LGBTQ+ individuals involved with the community are more readily identifiable as LGBTQ+ and are therefore at increased risk of more direct threats such as minority-motivated violence and discrimination. Due to this, activities that facilitate and strengthen this connection to the LGBTQ+ community through involvement with the community may be beneficial on a proximal level but being publicly involved in activities that facilitate this sense of belonging may increase exposure to distal minority stressors simply through individuals being more overt about their identity. These varied ideas about sense of belonging may explain why sense of belonging did not significantly protect individuals from minority stress within this study.

The findings of this study suggest that in order to effectively reduce levels of minority stress among those who identify as LGBTQ+, more must be done to reduce individuals' levels of stigma consciousness. The expectations of discrimination and the increased pre-occupation with stigmatised minority status which occurs in those with higher levels of stigma consciousness (Pinel, 1999) are thought to stem from exposure to distal stressors which promote and maintain stigma such as heteronormative environments and direct acts of discrimination (Meyer, 2003) along with stereotypical or negative opinions of those whose behaviour or traits do not conform to social norms (Dudley, 2000). Therefore, in order to reduce stigma consciousness levels, stigma must be addressed. Widespread social attitudes that promote and maintain stigma must change in order to effectively reduce these expectations of discrimination (through aiming to reduce acts of discrimination and heteronormative ideas and environments). Reducing stigma in the first place would be an effective way to reduce levels of stigma consciousness and more work must be done to ensure that stigmatising and heteronormative environments and attitudes are replaced by those that promote inclusivity, acceptance and tolerance with an aim to reduce this stigma.

Pragmatically, one way to reduce this stigma is through education. As Meyer (2003) previously states, early socialization experiences are extremely influential in terms of acquiring attitudes. Due to this being such an influential time, educating children on the realities of being LGBTQ+ and through challenging untrue stereotypical and prejudiced ideas may be a particularly effective way of reducing stigma. Deeply held attitudes are difficult to change (Albarracin and Shavitt, 2018) so teaching positive, tolerant and accepting attitudes to children initially will help to reduce the stigma attached to being LGBTQ+. Although it must be appreciated that attitudes are difficult to change, these changes can occur and therefore adults should be educated on LGBTQ+ issues too in an aim to change any prejudiced or stigmatising attitudes they already hold. This could be done through workshops in a range of settings for example in the workplace or in schools for parents.

In terms of methodology, the current study has a number of strengths. The study is wide ranging in its assessment of minority stress; the Daily Heterosexist Experiences Questionnaire includes nine different types of minority stressors in various areas of an individual's life that allows for a broad insight into minority stress experienced of those who identify as LGBTQ+. Additionally, this measure has previously been

validated using samples of LGBTQ+ people from a range of ethnic backgrounds, races, gender identities and sexual orientations, making it appropriate for use within this study (specifically because this study sought to explore minority stress levels among a wide range of sexual orientations and gender identities). Another strength of this study is the fact that it includes a range of both sexualities and gender identities. Much of the research in this area focuses on the experience of gay males and lesbian females. However, anybody that identifies as a sexuality that is not heterosexuality or a gender identity that is not cisgender is considered a minority and as part of the LGBTQ+ community and should therefore be included in research regarding sexuality and gender.

Despite a number of strengths, there are several limitations to the current study that must be considered, one of which is multicollinearity. Unfortunately, the self-esteem and identity distress predictors demonstrated high correlations with each other. Additionally, identity distress and sense of belonging were also highly correlated and therefore both identity distress and self-esteem were removed from analysis and were not investigated. This limited the scope of the study as it meant only one proximal stressor was explored. Further research could consider other potential stressors and protective factors involved in minority stress experiences specific to the LGBTQ+ community for further, broader insight into minority experiences. For example, some research suggests that there may be individual differences in minority stress levels of those who choose to conceal their minority status and those who are more open about their identity (Rawls, 2004). As previously mentioned, this concept of identity concealment and identity distress are thought to be linked (Hoy-Ellis, 2016) but are separate concepts and so this could be a suitable alternative to looking at identity distress as a stressor in relation to minority stress.

Another limitation is regarding the sense of belonging measure used. Despite a high Cronbach's Alpha value deeming the questionnaire as being reliable, the Sense of Belonging Instrument (Hagerty and Patusky, 1995) uses almost entirely negatively worded items (bar one reversed question). Jena and Pradhan (2018) have previously criticised negatively worded measures of belongingness such as the one used in this study. This is because they could be considered an indirect measurement of sense of belonging as they measure an absence of belongingness rather than a sense of belonging. Although a lack of belongingness is an indicator of sense of belonging, it may not be an accurate assessment of sense of belonging and therefore to improve the current study and in future research, a true, direct measure of sense of belonging should be used in order to increase validity.

In terms of generalisability of the study, results may be limited. All of the participants within this study were asked about their location and all of the participants were from countries deemed with a western society (the UK and the US) therefore; this study may be considered ethnocentric. Those living in a country such as Russia where there are widespread negative attitudes towards this minority group to the point where those who are LGBTQ+ are often persecuted (Chernysh, 2010) may have different minority stress experiences to those who live in the UK or the US. Although being LGBTQ+ in a western society can be a stressful experience (as supported by the current study), research suggests this may be more extreme in other areas of the world (Chernysh, 2010) and therefore experiences may differ.

Considering these limitations, there are a number of areas future research could investigate to build upon the current research study. Further research could

investigate the effect of these predictors of minority stress among individuals who are from countries where being LGBTQ+ is illegal or deemed as unacceptable. Although it is important to appreciate that in countries where it is deemed generally unacceptable or illegal to be LGBTQ+, this may be difficult as concealment of identity is more likely to occur (White et al., 2016) and individuals may be less willing to participate due to the dangers associated with disclosing their sexuality and or gender identity. Research could also explore other potential stressors and protective factors contributing to minority experiences specific to the LGBTQ+ community such as concealment of minority identity in order to gain a broader sense of minority experiences. Additionally, if the current research was to be replicated, the sense of belonging measure used could be modified so that sense of belonging is measured directly (rather than indirectly as the current study does).

Overall, stigma consciousness was found to be a strong significant predictor of minority stress levels among those who identify as LGBTQ+ while sense of belonging did not significantly protect LGBTQ+ individuals against minority stress. The findings demonstrate that despite the fact Meyer's original theory was posited over 15 years ago and despite the view that social changes have led to more egalitarian attitudes towards those who do not conform to heteronormative ideas in the western world (Pitoňák, 2017), minority stress theory is still relevant today as stigma consciousness has persisted and continues to impact upon minority stress levels. Findings indicate that despite a shift towards equality, inequalities in experience still exist. Findings demonstrate that more needs to be done to help reduce stigma consciousness among those in the LGBTQ+ community. This can be done through the promotion of tolerant and accepting attitudes and ideals through education with an aim to reduce stigmatising and stereotypical attitudes. Further research could explore minority stress among those who are not from a western background as to make research more generalisable or could include other stressors unique to an LGBTQ+ minority identity such as identity concealment.

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