HIV diagnosis and identity processes among men who have sex with men (MSM) in London, Athens, and New York

Christos Daramilas & Rusi Jaspal
De Montfort University Leicester UK

Given the advent of highly effective antiretroviral therapy, HIV is now considered a manageable chronic condition. However, the social, psychological and indeed physical aspects of living with HIV can be challenging. In this research note, the social psychological aspects of HIV diagnosis are discussed in the contexts of three cities – London, Athens and New York – in which men who have sex with men (MSM) face particular inequalities vis-à-vis HIV. It is argued that identity process theory from social psychology can offer particularly fruitful insights into the social psychological implications of HIV diagnosis and that the theory can help inform psychological and behavioural interventions for MSM diagnosed with HIV. This research note provides basic surveillance data for the three city contexts and reviews key literature in the area of HIV psychology from the perspective of identity process theory. Some testable hypotheses are developed on the basis of existing research and theory concerning HIV.

Keywords
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Author details
Christos Daramilas is an MSc student in Business Consulting Analytics at Loughborough University, UK.

Rusi Jaspal is Chair in Psychology and Sexual Health and Deputy Director of the Mary Seacole Research Centre (HIV/ sexual health research strand) at De Montfort University Leicester, UK.

Contact details
Professor Rusi Jaspal, Mary Seacole Research Centre, Faculty of Health & Life Sciences, De Montfort University, Leicester LE1-9BH, UK. Tel: +44 (0)116 250 7109 E-mail: rusi.jaspal@cantab.net

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Introduction

In this research note, the social psychological aspects of Human Immunodeficiency Virus (HIV) diagnosis are discussed in the contexts of three cities – London, Athens and New York – in which men who have sex with men (MSM) face particular inequalities vis-à-vis HIV. As highlighted in this article, these cities present distinct socio-structural conditions in relation to HIV infection, which in turn can create distinct implications for identity processes and coping strategies among those diagnosed with the chronic condition. Globally, HIV, which causes Acquired Immune Deficiency Syndrome (AIDS), remains a major public health crisis. Since its discovery in 1981, 36 million people have died of AIDS. In 2014, 36.9 million people were living with HIV worldwide. In Western industralised countries, MSM are disproportionately affected by HIV/AIDS and, as an epidemiological group, they remain at high risk of HIV acquisition. Although HIV is now considered a manageable chronic condition, the social, psychological and indeed physical aspects of living with HIV can be challenging (Arseniou, Arvaniti, & Samakouri, 2014). It this article, suggestions are made about the theoretical and methodological tools best suited to investigating the social psychology of HIV diagnosis among MSM in these contexts, and some testable hypotheses are proposed.

HIV surveillance in the three target cities

According to Public Health England (2015), it is estimated that 103,700 people are living with HIV in the UK, 17 per cent of whom are as yet undiagnosed. HIV prevalence is 0.19% of the population aged between 15 and 59. In the UK like in many other Western industrialised countries, MSM face particular vulnerabilities in relation to HIV. Recent data from Public Health England show that approximately 45,000 MSM across the UK were living with HIV in 2014. Thus, MSM represent 43% of the UK national HIV cohort, despite constituting approximately 2-3% of the male population, which demonstrates the magnitude of the HIV burden in MSM.[1] In London, HIV prevalence among MSM is higher – it is estimated that 1 in 11 MSM are living with HIV. Furthermore, in 2014, 5850 new diagnoses of sexually transmitted HIV were recorded, 57% of which were among MSM.

In Greece, in 2011 HIV prevalence in the general population was estimated to be 0.7% and in 2009 there was a 6.5% prevalence among MSM specifically (ECDC, 2012). Moreover, during 2011, 963 HIV diagnoses were recorded, 362 (37.6%) of which were among MSM. It is noteworthy that 75-85% of those HIV cases reported with an undetermined route of

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[1] National AIDS Trust http://www.nat.org.uk/HIV-in-the-UK/HIV-Statistics/Latest-UK-statistics/Men-who-have-sex-with-men.aspx

transmission may well be among MSM who did not disclose their sexual identity. This may be attributed to elevated homophobic prejudice in the Greek context, which can in turn induce internalised homophobia and concealment of one's sexual identity (Zervoulis, Lyons & Dinos, 2015). Recent reports in the Greek context demonstrate that, while HIV prevalence is relatively low, HIV incidence is rising, which has been attributed, at least in part, to the economic downturn in the country (Fotiou et al., 2012).

In the USA, 1.2 million people were living with HIV in 2015 (CDC, 2015). In 2011, MSM constituted 54% of the population living with HIV and, although MSM represent about 4% of the male US population, they remain the group most affected by HIV in the US. Minority ethnic groups in both the UK and the US face a greater HIV burden than the general population (Fish, Papaloukas, Jaspal & Williamson, in press). Indeed, it has been found that Black MSM are 15 times more likely to be diagnosed with HIV than the general population (Millett et al., 2012). In 2010, the highest number of new infections (4,800) among MSM arose among young African American MSM aged between 13 and 24. This age group accounted for 45% of new infections among African American MSM and 55% of HIV infections among young MSM in total. Of all MSM living with diagnosed HIV in 2013, 31% were African American while 43% were White, which highlights the inequality faced by African American MSM in relation to HIV infection (CDC, 2015).

These epidemiological data, collectively, demonstrate the pressing need to address the psychological and behavioural aspects of HIV among MSM in the UK, Greece, and the USA. The specific cities of London, Athens and New York merit particular attention because they all represent a relatively high HIV prevalence in their respective countries. A comparative study of these cities would be informative, because they differ in terms of socio-economic and cultural variables, which can plausibly affect the experience of testing positive for HIV and that of living with it as a chronic condition. For instance, in a cultural context like Greece where open discussions of HIV among gay/bisexual men is rare, some individuals may choose not to disclose their HIV status due to perceived stigma, while in London where there is considerably greater awareness of HIV in the London gay/bisexual community this may not necessarily be the case. There is also a significant number of HIV support networks and resources available in London and New York (in comparison to Athens).

Greece, and specifically Athens, constitutes an important and novel case study given that little research has been conducted on the experience of living with HIV in this context (though see Sachperoglou & Bor, 2001 for an insightful exception). Furthermore, Greece is currently confronted by a serious financial crisis which has also had a negative impact on the lives of MSM living with HIV (particularly in relation to their HIV care). For instance, there are reports that some HIV clinics in Greece are unable to dispense antiretroviral medication, which has led to delays in receiving first-line drugs, such as Eviplera (Karamanoli, 2012). This situation may affect not only physical well-being, given that non-adherence to ART can induce viral mutations and, thus, drug resistance, but also psychological health because of the fear and uncertainty that can understandably accompany inconsistent access to HIV treatment. Furthermore, there exists a refugee crisis that disproportionately affects Greece, and sexual health outcomes in this population may be poorer than in the general population (Finnerty & Shahmanesh, 2016). This may contribute to increased HIV and other sexually transmitted infections (STI) incidence.

On the other hand, the US and particularly New York, represents an important case study for several reasons. First, HIV prevalence among MSM is high (Koblin et al., 2000). Second, there is a growing sense of community among HIV positive MSM which can create both opportunities and challenges for living with HIV (Courtenay-Quirk et al., 2006). Third, there is no automatic universal access to antiretroviral medication which can adversely affect not only individual physical health but also public health due to non-suppression of viral load and, thus, continued infectiousness (CDC, 2011). Additionally, there are major inequalities between ethnic groups in New York, with African American and Latino MSM who are at highest risk of HIV infection (Wilson & Yoshikawa, 2007).

London constitutes an important case study because of factors, such as the growing HIV incidence among MSM, the high prevalence of HIV in the city (1 in 11 MSM), the widespread practice of "chemsex" (drug use in sexualised settings) among MSM in London (Bourne et al., 2014), and the provision of publicly funded HIV care to people living with HIV (BHIVA, 2012). It is noteworthy that, although BHIVA guidelines recommend initiation of ART regardless of the patient's CD4 cell count, NHS England does not currently commission ART until the patient's CD4 count has decreased to 350 cells/mm^3. However, treatment as prevention (e.g. if the HIV-positive patient's sexual partner is HIV-negative) is considered a valid reason for initiating ART regardless of CD4 cell count throughout the UK (NHS England, 2015). These factors will play a significant role in how HIV diagnosis is understood and how it shapes the HIV-diagnosed individual's engagement with their chronic condition (see Public Health England, 2015).

Research should challenge the biomedical model of HIV medicine, and acknowledge the additionally important role of socio-structural factors in shaping psychological and physical health outcomes among HIV-positive individuals. It is likely that these socio-structural factors give rise to distinct "cultures" of HIV which in turn shape the social and psychological experience of HIV diagnosis. For instance, widespread access to high-quality HIV care in London may create a culture in which patients with HIV can experience more favourable outcomes for their sense of self-efficacy – indeed, this principle has been associated with engagement with HIV care as patients come to feel empowered vis-à-vis their chronic condition (Chen et al., 2013). Conversely, in New York where access to HIV care is not publicly funded it is doubtful that patients would experience high levels of self-efficacy in relation to their HIV infection. Accordingly, future research ought to study and compare socio-structurally distinct contexts in which HIV infection among MSM is a significant concern.

It is important to attempt to understand how socio-economic and cultural factors relate to the experience of HIV diagnosis and of living with HIV as this can in turn enable researchers to develop behavioural interventions for enhancing psychological wellbeing among MSM living with HIV in these specific contexts. Behavioural interventions may also lead to better physical health outcomes given the established link between psychological and physical health (Fish, Papaloukas, Jaspal & Williamson, in press). Research should be guided by a holistic theory that can capture the complexity of social and psychological factors involved in responses to HIV infection.

A social psychological approach

Social psychologists have fruitfully investigated various aspects of HIV, including the experience of diagnosis, interpersonal relations and social stigma (e.g. Arseniou, Arvaniti, & Samakouri, 2014). HIV diagnosis, in particular, can be a challenging psychological event, which merits close empirical attention (Flowers, Davis, Larkin, Church & Marriott, 2011). It is proposed that Identity Process Theory (Jaspal & Breakwell, 2014) from social psychology can offer particularly useful insights. This framework enables the researcher to explore the impact of HIV diagnosis on the three prime levels of human interdependence – the intrapsychic, interpersonal and intergroup levels. These levels of analysis are key to social psychological enquiry (Doise, 1980).

Identity Process Theory (IPT) provides an integrative model of identity construction, threat and coping (see figure 1). The theory postulates that individuals construct their identity through engagement in two processes:

- *Assimilation-accommodation* refers to the process of absorbing new information into identity and of creating space for it within the identity structure. For instance, HIV diagnosis requires that one absorbs new information about oneself, that is, one's new HIV status (assimilation). The assimilation of this novel information may lead some MSM to feel ashamed of their sexual identity, leading to avoidance of sexual relations (accommodation) (Bernier et al., 2016);
- *Evaluation* refers to the process of attributing meaning and value to the components of identity. For example, an HIV diagnosis may be construed as reflecting a flaw in one's identity which can induce feelings of shame and self-deprecation (Bennet et al., 2016).

These processes are in turn guided by various motivational principles which essentially specify the desirable end-states for identity, that is, they constitute the guiding "goals" for the individual who constructs their identity:

- Self-esteem – personal and social worth;
- Self-efficacy – competence and control;
- Distinctiveness – uniqueness and differentiation from others;
- Continuity – a continuous temporal thread between past, present and future;
- Coherence – the perception that relevant aspects of identity are compatible.

When these principles are compromised, for instance, by changes in one's social context, identity is said to be *threatened* and the individual will deploy strategies for coping with the ensuing threats. In response to such threats to identity, the individual may try to cope using strategies that vary in their level of long-term efficacy (e.g. denial, acceptance, and self-isolation).

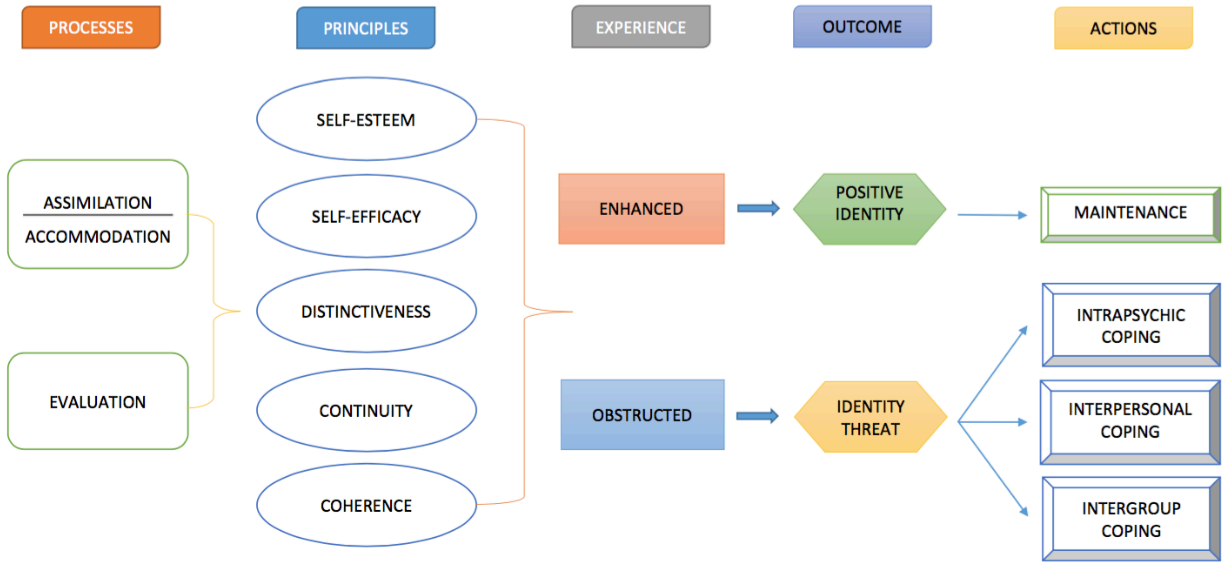

Figure 1: Identity Process Theory

It has been found that HIV diagnosis can pose threats to the individual's self-esteem given the social stigma that is appended to HIV and, particularly, its association with stigmatised behaviours such as having condomless sex with multiple partners. Indeed, some scholars have discussed the notion of "whore shaming" in order to capture this social stigma (Spieldenner, 2016). In the remainder of this research note, some of the existing research into the social psychology of HIV is reviewed through the lens of IPT and some testable hypotheses are proposed.

Research into the social psychological aspects of HIV diagnosis

This research note focuses on the social psychological aspects of HIV diagnosis in MSM and how these aspects may in turn shape the experience of living with HIV. There is evidence in the literature that HIV diagnosis can affect several aspects of seropositive MSM's identity, such as their sexual identity (Bourne et al., 2012), family identity (Sachperoglou & Bor, 2001), and occupational identity (Hunt et al., 2003).

Partly in view of the social stigma associated with HIV, HIV diagnosis and the experience of living with HIV can give rise to post-traumatic stress disorder (PTSD). In a systematic review of HIV infection associated with PTSD and post-traumatic growth (Sherr et al., 2011b), it was found that there was a 5% to 74% prevalence of PTSD in HIV compared to 7% to 10% in the general population. There was also evidence of a link between HIV-related trauma and PTSD. This can have considerable implications for health behaviours such as decreased adherence to antiretroviral therapy and general difficulties in engaging in HIV care (LeGrand et al., 2015). Furthermore, initiation of antiretroviral therapy, which must be continued for the rest of the individual's life, might plausibly represent a threat to continuity, as it can serve as a daily reminder of one's HIV infection.

Hypothesis 1: Given that HIV-related trauma represents a threat to identity, individuals will attempt to deflect the threat by disengaging from HIV care. This will apply to HIV-positive MSM who experience trauma in all three cities.

Furthermore, in a recent paper by Sherr et al. (2011a), it was argued that depression is an important correlate of HIV. For instance, it was observed that pre-existing depression can put an individual at risk of HIV infection, that the experience of HIV-related illness can cause depression, and that HIV medication (including antiretroviral agents such as efavirenz) can exacerbate or precipitate mood disturbance. This suggests that depression is a key psychopathology that needs to be addressed in interventions designed to improve health outcomes among people living with HIV. It is vital to conduct research that can inform psychological interventions that reduce the incidence of depression among individuals diagnosed with HIV. Indeed, as suggested by Arseniou et al. (2014), treatment of HIV-related depression can improve the individual's quality of life, which in turn can lead to better disease prognosis. Chronic threats to identity that remain unresolved can lead to psychopathological states, such as depression and depersonalisation (Breakwell, 1986). It is therefore important to understand which identity principles are likely to be threatened in order to develop interventions that can prevent chronic threats to identity.

Hypothesis 2: Given the greater social stigma appended to HIV in Athens, individuals diagnosed with HIV in this city are more likely to experience long-term threats to self-esteem and to manifest depressive symptoms than HIV-positive MSM in London and New York.

Moreover, an HIV diagnosis can have a profound impact on affect. Carrico et al. (2014) indicated that positive affect of individuals living with HIV was positively associated with entry into HIV care 3 months after diagnosis and adherence to antiretroviral therapy over the 18-month follow-up period. The relationship between identity threat and affect remains a lacuna in IPT research (Coyle & Murtagh, 2014), although there is some emerging qualitative evidence that threat is associated with negative affective experiences (Jaspal, 2012). Future research must consider affect among HIV-diagnosed individuals particularly in relation to possible experiences of identity threat. The social stigma that links HIV diagnosis to promiscuity and immorality could threaten self-esteem in the newly diagnosed individual, leading to feelings of self-disgust and shame (Lee, Kochman & Sikkema, 2002). Threats to self-esteem, and the negative affective experiences associated with them, may serve as a barrier to HIV care thereby undermining physical health outcomes. Indeed, as Castrighini et al. (2010) have argued low self-esteem can reduce the level of confidence required to seek HIV care among individuals who are living with the chronic condition. More generally, self-esteem has been described as a primary motivational principle for help-seeking (Wakimoto, 2008).

Hypothesis 3: In Athens where HIV-positive MSM may perceive decreased access to social support services (due to fear of disclosure and stigma, for example) than in London and New York, they will manifest decreased self-esteem and engagement with HIV care than HIV-positive MSM in London and New York.

As reported by Flowers et al. (2011) and the aforementioned studies of depression and PTSD, the psychosocial impact of HIV diagnosis among HIV positive MSM can be considerable. While policy efforts mainly focus on HIV prevention, it is important to consider the psychosocial cost of HIV diagnosis among those living with the condition. In their early research into the link between sense-making vis-à-vis HIV diagnosis and physical health, Segerstrom et al. (1996) argued that attributions involving negative beliefs of the self, the future and perceived control over events leading to HIV infection among HIV-positive gay men were associated with a decline in CD4 cell count. This early study provides some evidence that construal of one's diagnosis and HIV status, such as the identity attributions that individuals may make in the process of making sense of their HIV diagnosis, can affect physical health outcomes. With the demonstrated impact of psychological construal for HIV disease progression (i.e. CD4 decline), research into identity processes is key.

Hypothesis 4: Given that HIV-positive MSM in London are more likely to be exposed to HIV affirmative images, they will manifest higher levels of self-esteem and self-efficacy, which will in turn be associated with better physical health outcomes (i.e. viral suppression and higher CD4 cell count), than HIV-positive MSM in Athens.

The attributions that individuals make are drawn at least in part from dominant social representations, that is, social images and ideas about HIV that circulate in society. The long-standing social stigma appended to HIV is a key area of enquiry in social sciences studies of HIV. The stigmatisation of those living with HIV can plausibly affect not only their self-identity but also their interpersonal relationships. This is exemplified by Toppenberg et al.'s (2015) experimental study which revealed that patients with HIV (and specifically gay male patients with HIV) were more marginalised than patients with cancer or patients with a broken leg, suggesting that HIV in particular is a chronic condition that can invite negative responses from others due to the associated stigma and negative stereotypes. HIV stigma can lead to rejection of seropositive MSM with implications for their health outcomes. Cole et al. (1997) demonstrated that accelerated HIV progression was detected among rejection-sensitive individuals in the US who did not conceal their sexual identity. The rejection-sensitive personality trait predisposes the individual to identity threat when he/ she is rejected. This research suggests that the physical health of seropositive MSM can deteriorate when their social identity (in this case, the sexual identity) is stigmatised. The negative correlation between the experience of social stigma and self-esteem is well documented, particularly when there is no cohesive group membership to buffer the negative effects of stigma (Crocker & Major, 1989). For instance, it has been observed that Greek MSM living with HIV may experience difficulties in disclosing their HIV status to significant others, such as family members, which can deprive them of social support (Sachperoglou & Bor, 2001), while Londoners diagnosed with HIV appear to be more likely to disclose their status to significant others (Petrak et al., 2001). Cole et al.'s (1997) work suggests that social support and social acceptance may help decelerate HIV progression, and that identity is a key variable in disease progression (see also Segerstrom et al., 1996). In view of this work, it is important to explore how social support and social acceptance may facilitate adequate coping processes that also lead to better physical health outcomes.

Hypothesis 5: Threats to self-esteem and continuity that are associated with interpersonal rejection on the basis of one's positive serostatus will be buffered by perceived social support.

Aspects and constructs related to identity (such as self-esteem) play a key role in how individuals respond to a positive HIV diagnosis. According to Nicholson and Long (1990), HIV positive gay men in Canada react either proactively or avoidantly when confronted with a positive diagnosis. In explaining their findings, the authors argued that increased homophobia and decreased self-esteem predicted engagement in avoidant behaviours while less homophobia and greater self-esteem could induce a proactive coping style. This study identifies self-esteem, which may be challenged by the experience of homophobia (Zervoulis, Lyons & Dinos, 2015), as a key predictor of coping style. In addition to considering the factors that can challenge self-esteem, it is vital to explore and predict the coping strategies likely to be deployed by individuals following an HIV diagnosis.

Hypothesis 6: In addition to self-esteem, increased self-efficacy will be associated with the adoption of proactive coping strategies in relation to HIV diagnosis.

Post-traumatic growth is a form of coping with adversity. Milam (2006) investigated the relationship between post-traumatic growth (PTG) and HIV disease progression. He found that there was a positive association between PTG and CD4 count which was moderated by ethnicity (Hispanic vs non-Hispanic) and level of optimism (low vs high). The study reported a negative correlation between PTG and viral load among individuals who reported low levels of pessimism. Hence, culture and personality traits (both aspects of identity) can have a significant impact on physical health outcomes among people living with HIV. Results from a study of stress and medication adherence and viral load conducted by Weaver et al. (2005) suggested that negative mood and lower social support among seropositive individuals are closely related to poorer medication adherence and hence higher viral load. Moreover, as indicated by a study of Moskowitz et al. (2009), a range of contextual factors such as time since diagnosis and initiation of antiretroviral therapy can determine the effectiveness of coping. Studies of HIV diagnosis must consider identity as a holistic construct, consisting of *inter alia* personality traits, cultural norms and values, and group memberships.

Hypothesis 7: HIV-positive MSM in Athens will perceive lower levels of social support (e.g. from family members) than HIV-positive MSM in London and New York and, thus, higher levels of threat to self-esteem, continuity and self-efficacy following HIV diagnosis. This in turn will be associated with suboptimal strategies for coping, such as deflection strategies, among HIV-positive MSM in Athens.

Future research must aim to develop psychological and behavioural interventions for channeling HIV-positive individuals towards positive coping behaviours. In a systematic review of interventions for anxiety for people with HIV (Clucas et al., 2011), it was found that psychological interventions were more effective than pharmacological ones, further demonstrating the need for social psychological investigations of HIV diagnosis and for a shift from solely biomedical approaches to HIV treatment. Given that interventions can be effective in reducing risk behaviour and in improving health outcomes among HIV-positive MSM (Sikkema et al., 2011), it seems reasonable to explore aspects of identity and coping and to develop interventions on the basis of these data.

Concluding thoughts

In this research note, HIV surveillance data are provided for three cities – London, New York and Athens - in which HIV is a pressing health concern for MSM health, in particular. It is argued that Identity Process Theory constitutes a fruitful heuristic framework for understanding the social psychological impact of HIV diagnosis for MSM and for informing possible behavioural interventions for minimising psychological trauma. The empirical studies briefly reviewed in this research note point to the relevance of psychosocial factors, such as self-construal, attributions, self-esteem, interpersonal relations and social stigma, in predicting psychological and physical health. Concerns such as adherence to antiretroviral therapy and disclosure of one's HIV status to sexual partners appear to have at least some psychosocial underpinnings.

This article outlines a series of hypotheses that could be tested in future social psychological research into HIV diagnosis among MSM in Athens, London, and New York. There is a particular focus on the identity principles that may be affected by the experience of HIV diagnosis and the coping strategies that may be associated with potential threats to identity. These hypotheses have been developed on the basis of existing research, and the results of this research should inform the development of social, psychological, and behavioural interventions for improving quality of life among MSM who are diagnosed with HIV. A multi-level analysis that can capture this social psychological complexity requires a multi-methodological research plan consisting of qualitative interviews that can tap into MSM's perceptions and understandings of their diagnosis as well as their relationships with others, and quantitative survey research that can elucidate systematic relationships between key psychosocial variables, such as self-esteem, self-efficacy, willingness to disclose and medication adherence. Identity is a complex and multifaceted construct and, thus, researchers should draw on the wide range of methodological tools available to them – both qualitative and quantitative (Jaspal & Breakwell, 2014).

Research should be conducted in the distinct city contexts outlined in order to understand the possible impact of social and cultural representations prevalent in them. It is hoped that this research note will encourage researchers to acknowledge the importance of researching HIV diagnosis in these contexts with a view to devising strategies for improving health and wellbeing among MSM living with this chronic condition. Social psychology has a key role to play in this empirical endeavour.

References

Arseniou, S., Arvaniti, A., & Samakouri, M. (2014). HIV infection and depression. *Psychiatry and Clinical Neurosciences, 68,* 96-109.

Bennett, D. S., Traub, K., Mace, L., Juarascio, A., & O'Hayer, C. V. (2016). Shame among people living with HIV: a literature review. *AIDS Care*, *28*(1), 87–91.

Bernier, A., Lefèvre, M., Henry, E., Verdes, L., Acosta, M.-E., Benmoussa, A., … Préau, M. (2016). HIV seropositivity and sexuality: cessation of sexual relations among men and women living with HIV in five countries. *AIDS Care*,*28*(sup1), 26–31.

BHIVA (2012). *Standards of Care for People Living with HIV 2013*. British HIV Association.

Bourne, A., Hickson, F., Keogh, P., Reid, D., & Weatherburn, P. (2012). Problems with sex among gay and bisexual men with diagnosed HIV in the United Kingdom. *BMC Public Health, 12*(916).

Bourne, A., Reid, D., Hickson, F., Torres Rueda, S. & Weatherburn, P. (2014). *The Chemsex study: drug use in sexual settings among gay & bisexual men in Lambeth, Southwark & Lewisham*. London: Sigma Research, London School of Hygiene & Tropical Medicine. www.sigmaresearch.org.uk/chemsex

Breakwell, G.M. (1986). *Coping with threatened identities.* London: Methuen.

Carrico, A. W. & Moskowitz, J. T. (2014). Positive affect promotes engagement in care after HIV diagnosis. *Health Psychology, 33*(7), 686-689.

Castrighini, C., Gir, E., Neves, L., Reis, R., Galvão, M. & Hayashido, M. (2010). Depression and self-esteem of patients positive for HIV/AIDS in an inland city of Brazil. *Retrovirology*, 7(Supplement 1), 66.

CDC (2011). Vital signs: HIV prevention through care and treatment — United States, Morbidity and Mortality Weekly Report (*MMWR*), *60*(47), 1618-1623

CDC (2014). HIV Surveillance Report, 2014; vol. 26. http://www.cdc.gov/hiv/library/reports/surveillance/ Published November 2015. Accessed 22 July 2016.

CDC (2015) HIV in the United States: At a glance. http://www.cdc.gov/hiv/statistics/overview/ataglance.html Retrieved on 4 May 2016.

Chen, W.-T., Wantland, D., Reid, P., Corless, I. B., Eller, L. S., Iipinge, S., … Webel, A. R. (2013). Engagement with Health Care Providers Affects Self- Efficacy, Self-Esteem, Medication Adherence and Quality of Life in People Living with HIV. *Journal of AIDS & Clinical Research*, *4*(11), 256.

Clucas, C., Sibley, E., Harding, R., Liu, L., Catalan, J., & Sherr, L. (2011). A systematic review of interventions for anxiety in people with HIV. *Psychology, Health & Medicine, 16*(5), 528-547.

Cole, S. W., Kemeny, M. E., & Taylor, S. E. (1997). Social Identity and Physical Health: Accelerated HIV Progression in Rejection-Sensitive Gay Men. *Journal of Personality and Social Psychology*, *72*(2), 320-335.

Courtenay-Quirk, C., Wolitski, R. J., Parsons, J. T., Gomez, C. A., & Seropositive Urban Men's Study Team. (2006). Is HIV/AIDS stigma dividing the gay community? Perceptions of HIV-positive men who have sex with men. *AIDS Education and Prevention, 18*(1), 56-67.

Coyle, A. & Murtagh, N. (2014). Exploring the use of identity process theory in qualitative identity research. In R. Jaspal, G. M. Breakwell (Eds.), *Identity process theory: identity, social action and social change* (pp. 41-64). Cambridge: Cambridge University Press.

Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review*, *96*, 608–630.

Doise W. (1980). Levels of explanation. *European Journal of Social Psychology*, *10*, 213-231

ECDC (2012). Risk assessment on HIV in Greece. Stockholm: European Centre for Disease Prevention and Control. http://ecdc.europa.eu/en/publications/Publications/20121130-Risk-Assessment-HIV-in-Greece.pdf Retrieved on 6 May 2016

Finnerty, F. & Shahmanesh, M. (2016). Sexual and reproductive health in the European refugee crisis. *Sexual Transmitted Infections,* doi:10.1136/sextrans-2016-052538.

Fish, J., Papaloukas, P., Jaspal, R. & Williamson, I. (in press). Promoting sexual health: a systematic review of effective interventions for black and minority ethnic men who have sex with men. *BMC Public Health.*

Flowers, P., Davis, M. M., Larkin, M., Church, S., & Marriott, C. (2011). Understanding the impact of HIV diagnosis amongst gay men in Scotland: An interpretative phenomenological analysis. *Psychology and Health*, *26* (10), 1378-1391.

Fotiou, A., Micha, K., Paraskevis, D., Terzidou, M., Malliori, M. M., Hatzakis, A. (2012). *HIV outbreak among injecting drug users in Greece*. Athens: EMCDDA.

Hunt, B., Jaques, J., Niles, S. G., & Wierzalis, E. (2003). Career Concerns for people living with HIV/AIDS. *Journal of Counseling & Development, 81,* 55-60.

Jaspal, R. (2012). Coping with religious and cultural homophobia: emotion and narratives of identity threat from British Muslim gay men. In P. Nynäs & A.K.T. Yip (eds.), *Religion, Gender and Sexuality in Everyday Life* (p. 71-90). Farnham: Ashgate.

Jaspal, R. & Breakwell, G.M. (2014). *Identity process theory: identity, social action and social change.* Cambridge: Cambridge University Press.

Karamanoli, E. (2012). Greece's financial crisis dries up drug supply. *The Lancet, 379,* 302.

Koblin, B. A., Torian, L. V., Guilin, V., Ren, L., MacKellar, D. A., & Valleroy, L. A. (2000). High prevalence of HIV infection among young men who have sex with men in New York City. *AIDS 2000, 14* (12), 1793-1800.

Lee, R.S., Kochman, A., & Sikkema, K. (2002). Internalized stigma among people living with HIV/AIDS. *AIDS & Behavior,* 6(4), 309-319

LeGrand, S., Reif, S., Sullivan, K., Murray, K., Barlow, M. L., & Whetten, K. (2015). A Review of Recent Literature on Trauma among Individuals Living with HIV. *Current HIV/AIDS Reports*, *12*(4), 397–405.

Milam, J. (2006). Posttraumatic Growth and HIV Disease Progression. *Journal of Consulting and Clinical Psychology*, *74*(5), 817-827.

Millett, J., Jeffries, W.L., Peterson, J.L., Malebranche, D.J., Lane, T., Flores, S.A., Fenton, K.A., Wilson, P.A., Steiner, R., Heilig, C.M. (2012). Common roots: a contextual review of HIV epidemics in black men who have sex with men across the African diaspora. *Lancet*, *380*, 411-423.

Moskowitz, J.T., Hult, J.R., Bussolari, C. & Acree, M. (2009). What works in coping with HIV? A meta-analysis with implications for coping with serious illness. *Psychological Bulletin*, 135(1), 121-141.

NHS England (2015). F03/P/c Treatment as Prevention in HIV infected adults. NHS England. https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2015/10/f03pc-tasp-oct15.pdf Retrieved on 10 June 2016

Nicholson, W. D. & Long B. C. (1990). Self-Esteem, Social Support, Internalized Homophobia, and Coping Strategies of HIVf Gay Men. *Journal of Consulting and Clinical Psychology*, *58* (6), 873-876.

Petrak, J.A., Doyle, A.M., Smith, A., Skinner, C. & Hedge, B. (2001). Factors associated with self-disclosure of HIV serostatus to significant others. *British Journal of Health Psychology*, *6*(1), 69-79.

Public Health England. (2015). *HIV in the UK:2015 Situation Report.* Retrieved from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/477702/HIV_in_the_UK_2015_report.pdf Retrieved on 7 May 2016.

Sachperoglou, E. & Bor, R. (2001). Disclosure of HIV seropositivity and social support: general patterns in Greece. *European Journal of Psychotherapy, Counselling & Health, 4*(1), 103-122.

Segerstrom, S. C., Taylor, S. E., Kemeny, M. E., Reed, G. M., & Visscher, B. R. (1996). Causal Attributions Predict Rate of Immune Decline in HIV-Seropositive Gay Men. *Health Psychology, 15*(6), 485-493.

Sherr, L., Clucas, C., Harding, R., Sibley, E., & Catalan, J. (2011a). HIV and Depression – a systematic review of interventions. *Psychology, Health & Medicine*, *16*(5), 493-527.

Sherr, L., Nagra, N., Kulubya, G., Catalan, J., Clucas, C., & Harding, R. (2011b). HIV infection associated post-traumatic stress disorder and post-traumatic growth – A systematic review. *Psychology, Health & Medicine*, *16*(5), 612-629.

Sikkema, K. J., Hansen, N. B., Kockman, A., Santos, J., Watt, M. H., Wilson, P. A., DeLorenzo, A., & Laudato, J., Mayer, G. (2011). The development and feasibility of a brief risk reduction intervention for newly HIV-diagnosed men who have sex with men. *Journal of Community Psychology*, *39*(6), 717-732.

Spieldenner, A. (2016). PrEP whores and HIV prevention: the queer communication of HIV pre-exposure prophylaxis (PrEP). *Journal of Homosexuality,* DOI:10.1080/00918369.2016.1158012

Toppenberg, H., Bos, A. E. R., Ruiter, R. A. C., Wigboldus, D. H. J., & Pryor, J. B. (2015). HIV-related stigma in social interactions: Approach and avoidance behaviour in a virtual environment. *European Journal of Social Psychology*, *45*, 169-179.

Wakimoto,R. (2008). Influence of level and instability of self-esteem on help-seeking orientation and help-seeking. *The Japanese Journal of Experimental Social Psychology*, *47*(2), 160-168.

Weaver, K. E., Llabre, M. M., Duran, R. D., Antoni, M. H., Ironson, G., Penedo, F. J., &

Schneiderman, N. (2005). A Stress and Coping Model of Medication Adherence and Viral Load in HIV-Positive Men and Women on Highly Active Antiretroviral Therapy (HAART). *Health Psychology, 24* (4), 385-392.

Wilson, P. A. & Yoshikawa, H. (2007). Improving Access to Health Care Among African-American, Asian and Pacific Islander, and Latino Lesbian, Gay, and Bisexual Populations. *The Health of Sexual Minorities,* 607-637.

Zervoulis, K., Lyons, E., & Dinos, S. (2015). Stigma and self-esteem across societies: avoiding blanket psychological responses to gay men experiencing homophobia*. BJPsych Bulletin*, 39, 167-173.