Minority Stress, Resilience, and Mental Health:

A Study of Italian Transgender People

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Abstract

Transgender people often experience oppression because of gender nonconformity. They represent an extremely stigmatized population at high risk of developing mental health problems. The minority stress model is a theoretical model used to understand social stigma as a potential cause mental health disparities faced by the transgender population. In Italy, studies applying this model to the transgender population are limited. The current study applied the minority stress model to a sample of Italian transgender people (n = 149), analyzing effects of prejudice events, expectations of rejection, and internalized transphobia, and their interaction with protective factors (resilience and social support), on mental health. The results suggest that exposure to everyday discrimination and internalized transphobia are associated with increased mental health problems, while perceived social support from family and resilience significantly reduced the strength of association between everyday discrimination and mental health. Findings have important implications for both social issues and policies.

Keywords: minority stress; stigma; transgender; resilience; family support.

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Transgender is an inclusive term referring to people whose gender identity is not fully aligned with their sex assigned at birth (American Psychological Association [APA], 2015). Researchers are increasingly focused on understanding the processes involved in and the extent of the social stigma effects on the mental health of transgender people (Bockting, Miner, Swinburne Romine, Hamilton, & Coleman, 2013; Bradford, Reisner, Honnold, & Xavier, 2013). As argued by some authors (e.g., Hendricks & Testa, 2012), similar to the gay, bisexual, and lesbian populations, transgender people are exposed to chronic social stress, or *minority stress*, due to their minority identity, which places them at risk for mental health problems. According to the theory (Meyer, 2003a, 2007; see Williams & Mann, in press, for overview), minority stress has a direct relationship with negative health outcomes, but protective factors – such as support, or community connectedness – can moderate the relation. As suggested by the Institute of Medicine (IOM, 2011), applying the minority stress model in research permits a deeper understanding of the mental health of lesbian, gay, bisexual, and transgender (LGBT) people. The minority stress model has only recently been empirically applied to transgender experiences (Bockting et al., 2013; Testa, Habarth, Peta, Balsam, & Bockting, 2015). Limited work to date has been conducted in Italy, and, to our knowledge, no studies yet exist that have tested the minority stress model in Italian transgender people. We aimed to understand the stigma that Italian transgender people experience, and analyze its effects on mental health.

Minority Stress in Transgender Populations

Leading researchers (e.g., Hendricks & Testa, 2012) and organizations (e.g., APA, 2015) have stressed the need to deepen the understanding of the phenomena related to minority stress among transgender people. A focus on minority stress, indeed, avoids pathologizing or blaming transgender individuals for these health disparities, and instead

assumes disparities originate in the stigmatizing social climate to which transgender people are exposed. Regarding the most distal stressors, or prejudice events, evidence indicates that transgender people suffer from high levels of violence and discrimination. For instance, Bradford et al. (2013) found in a sample of 350 transgender people recruited in Virginia that 41% suffered from transgender-related discrimination and that associated factors included gender (i.e., being Female to Male, or FtM), low socioeconomic status, ethnicity, lack of health insurance, younger age at first transgender awareness, history of violence, substance use, and low levels of family support and community connectedness.

There is evidence that psychological problems among transgender people stem from minority stress, both distal and proximal. For instance, Lombardi (2009), within a sample of 90 transgender people from California, found that experiencing transphobic events are associated with depression and anxiety. Bockting et al. (2013), in a sample of 1,093 US transgender people, reported that social stigma is associated with increased depression, anxiety, and somatization. Considering proximal stressors (e.g., internalized, perceived, or anticipated stigma) and transgender health, for instance Testa et al. (2012) stated that, due to the expectations of violence and discrimination, transgender people tend not to report violence to the police.

Hendricks and Testa (2012) recommend paying particular attention to suicidality, because rates of suicide attempts by transgender people appear alarming. Clements-Nolle, Marx, and Katz (2006) reported that 32% of their sample (N = 515) had attempted suicide. And, Perez-Brumer, Hatzenbuehler, Oldenburg, and Bockting (2015) reported that high levels of internalized transphobia represent a high risk factor related to suicide attempts. Internalized transphobia, a proximal stressor, consists of “profound shame, guilt, and self-loathing […] or more typically, an over-emphasis on passing as a non-transgender woman or man and a discomfort when associating with other transgender individuals onto whom

feelings of guilt and self-hatred are projected" (Bockting, Knudson, & Goldberg, 2006, p. 46).

Yet, there is evidence that transgender people are able to use adaptive strategies, such as resilience and social support, in the face minority stress (Pflum, Testa, Balsam, Goldblum, & Bongar, 2015; Singh, Hays, & Watson, 2011; Singh, Meng, & Hansen, 2014). Resilience involves the adaptation to risk factors and the capacity to "bounce back" from adversity, buffering the effects of stress on health, promoting social adjustment, and drawing upon individuals' inner resources (Zimmerman, 2013). As stated by Meyer (2015), resilience represents an integral part of the minority stress model because its meaning is comprehensible only in its relationship with stress. This is valid also for social support, which, due to the buffering effect on stressors, reduces the likelihood of developing negative health outcomes, making evident the role of resilience. Considering the evidence of resilience and social support in transgender people, Singh et al. (2011; 2014) found that resilience involves both individual traits and social characteristics. Among these, they highlighted the connectedness to transgender communities, which was effective in reducing negative outcomes of societal and internalized transphobia. In the same vein, Pflum et al. (2015) found that social support can ameliorate the negative mental health outcomes associated with from minority stressors. Thus, resilience and social support may function as bufferers of the effect of minority stressors on health.

Stigma and Mental Health in Italian Transgender People

Only a few studies have focused on minority stress in Italian transgender people. Gerini, Giaretton, Trombetta, and Romito (2009), within a small sample of 44 transgender persons recruited in a hospital in northern Italy, found that they experienced higher levels of prejudice events than the control group of Italian cisgender people recruited in the same clinic. Specifically, before the age of 18, 72% of transgender people suffered from

psychological abuse compared with 37% of cisgender people. However, the authors did not find significant differences between transgender and cisgender people in mental health problems, or in the effects of prejudice events on mental health.

With regard to resilience, Amodeo, Picariello, Scandurra, and Valerio (2015) theorized the positive role that transgender peer groups can have in developing resilience in facing social oppression within an European Union project aimed at empowering young LGBT people who experienced gender- or sexual-based violence. In addition, an empirical study by Amodeo, Vitelli, Scandurra, Picariello, and Valerio (2015) with a small group of Italian transgender individuals (N = 45), found that positive and secure attachment is associated with positive aspects of transgender identity. However, although some findings about distal minority stress and resilience experienced by Italian transgender people have been reported (Gerini et al., 2009), they do not address the link between minority stress and mental health, and do not include proximal stressors, with the exception of a study on internalized transphobia by Scandurra, Amodeo, Bochicchio, Valerio, and Frost (2017), which evaluated the psychometric characteristics of a scale assessing internalized transphobia in a sample of Italian transgender people. They found that internalized transphobia was significantly correlated with enacted stigma and mental health (perceived stress, anxiety, and depression). Notwithstanding, this study did not formally assess the minority stress model in this population.

The Current Study

The current study applied the minority stress model to experiences of Italian transgender people to increase understanding of social factors contributing to mental health outcomes within the transgender population. The Italian social context and climate is not very accepting for transgender people. Italy does not currently have a law prohibiting transphobic hate crimes and only recently, in 2015, the Supreme Court of Appeal declared that gender

reassignment surgery must not be considered a prerequisite for changing one's legal gender status. For a picture of the socio-cultural context lived by Italian transgender people, see Scandurra et al. (2017). Due to these social conditions, we expect that minority stress would represent a useful framework to understand the negative mental health outcomes in Italian transgender people that some Italian studies have previously observed (e.g., Colizzi, Costa, & Todarello; Fisher et al., 2013; Scandurra et al., 2017). We also expect that these contextual difficulties would elicit in this population inner resources to cope with stigma, making relevant resilience and support within the context of the minority stress experience.

This study had two main aims. The first aim was to explore the types of stigma and the levels of mental health problems experienced by a sample of Italian transgender people. The second aim was to test elements of the minority stress model in the Italian context. We hypothesised that minority stressors (prejudice events, percieved stigma, and internalized transphobia) would be positively associated with negative mental health outcomes (anxiety, depression, and suicidal ideation), and that this relationship would be moderated by specific protective factors (resilience and social support).

Method

Data analyzed in the current study are part of a project launched in November 2013, entitled the "Trans Life Survey," an online survey using purposive sampling aimed at assessing the effects of minority stress on the mental health of Italian transgender people.

Sample

The eligibility criteria for participation were: 1) self-identifying with a transgender identity; 2) being at least eighteen-years-old (the Italian age of consent); and 3) living in Italy for at least 10 years. No cross-dressers or bigender people took part in the survey. For this reason, we have included transsexual and transgender people in the category "transgender."

The sample consisted of 75 transgender women and 74 transgender men. Full demographic characteristics for the total sample and the sample by gender are shown in Table 1.

Procedure

With the aim of incentivizing participation, 10 participants were drawn by lottery, each winner receiving €100. We asked all of the participants to provide their personal email on a voluntary basis, guaranteeing that the email would be disassociated from their data. Participants were recruited via social media (e.g. Facebook). In addition, Italian NGOs engaging in promotion of transgender rights invited their contacts to take part in the study, facilitating a snowball sampling recruitment procedure.

To guarantee the privacy of all participants according to the Italian law 196/2003, collected data were protected by a secure gateway to which only the Principal Investigator (PI) had access. Once the data were downloaded, the PI removed all IP addresses and saved the emails of those participants who voluntarily decided to take part in the draw in a separate file. It was only after these procedures that the PI shared the data with other researchers. The study was designed to respect all principles of the Declaration of Helsinki on Ethical Principles for Medical Research Involving Human Subjects.

Twenty-two participants were removed from the sample because their missing data (range from 57% to 73%) were excessively widespread. Other missing data were handled through a multiple imputation procedure (Graham, 2009), using Amelia II package for R.

Measures

Socio-demographic characteristics as control variables. Socio-demographic variables included gender (male, female, and other with specification required), age, race/ethnicity, level of education, monthly income, marital status, size of community (urban, suburban, or rural), and religious education (yes/no).

Prejudice events. We used two measures to assess prejudice events suffered by transgender people. We assessed general discrimination using 9 items that asked participants whether they had been fired, rejected when they tried to rent an apartment, evicted, robbed, experienced trouble in finding a job or in having access to health services, vebally, physically, and sexually abused. The frequency for each item was measured on a 5-point Likert scale, from 0 (never) to 4 (very often). Each item was directly linked to transgender identity, asking "Considering your transgender identity or expression as the cause, how often have you experienced the following situation?" These items were created following the scales used by Clements-Nolle et al. (2006) and Bockting et al. (2013). The internal consistency reliability of the measure was $\alpha = .77$.

We also assessed everyday discrimination using the Everyday Discrimination Scale (EDS; Meyer et al., 2008). The EDS assesses the frequency of nine types of day-to-day discrimination experiences: being treated with less courtesy, being treated with less respect, receiving poorer services, being treated as not smart, perceiving that people act as if they are afraid of you, perceiving that people act as if you are dishonest, perceiving that people act as if they are better than you, being called names or insulted, and being threatened or harassed. The original scale asks the participants whether each of the specific experiences was caused by sexual orientation, gender, ethnicity, physical appearance, etc. Due to our specific sample, we asked directly: "In your day-to-day life how often have any of the following things happened to you due to your gender identity or expression?" The frequency of these experiences was measured on a 4-point Likert scale, from "never" to "often." In the present study the internal consistency reliability was $\alpha = .91$.

Perceived stigma. Perceived Stigma Scale (PSS; 6 items) assesses the expectations of rejection and discrimination. This measure was based on a scale developed by Link (1987) to assess stigma of mental illness and adapted by Meyer et al. (2008) to assess multiple social

categories (i.e., gender, race, sexual orientation, etc.). We adapted the scale to the transgender population, asking to participants "These next statements refer to a person like you; by this we mean persons who have the same gender expression or identity as you…. We would like you to respond on the basis of how you feel people regard you in terms of such groups." Respondents indicated to what extent they agreed with statements such as, "Most employers will not hire a person like you." Possible responses ranged from "agree strongly" to "disagree strongly" on a 4-point Likert scale, with higher scores indicating higher levels of perceived stigma. In the current study, the internal consistency reliability was $\alpha = .89$.

Internalized transphobia. The Transgender Identity Scale (TIS; Bockting, Miner, Robinson, Rosser, & Coleman, 2005; Italian adaption by Scandurra et al., 2017) is a 26-item measure that assesses positive and negative feelings and attitudes towards one's own transgender identity. This measure is constituted by 4 scales: Pride (e.g., "I am proud to be a transgender person"), Shame (e.g. "I sometimes resent my transgender identity"), Passing (e.g. "Passing is my biggest concern"), and Alienation (e.g. "I feel isolated and diverse from other transgender people"). The response options ranged from "strongly disagree" to "strongly disagree" on a 7-point Likert scale. The scale was recoded so that high scores on Pride indicated more positive attitudes and feelings towards one's own transgender identity, and a high score on Shame, Passing, and Alienation, indicated higher levels of internalized transphobia. In the current study, the internal consistency reliability for the subscales was, α =.84, .89, .86, and .82, respectively.

Depression. The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977; Italian adaption by Fava, 1981) is a 20-item measure assessing depressive symptoms experienced during the past week on a 4-point Likert scale, from "rarely or none of the time – less than 1 day" to "all of the time – 5-7 days." This scale is able to identify clinical depression and to differentiate depressed subjects from those who need

support for emotional problems. In transgender population, the alarm threshold is detected in the clinical cut-off score of 16 (Clements-Nolle, Marx, Guzman, & Katz, 2001). In the current study, the internal consistency reliability was $\alpha = .94$.

Anxiety. The Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988; Italian adaption by Sica, Coradeschi, Ghisi, and Sanavio, 2006) is a 21-item measure assessing anxious symptoms experienced during the past month on a 4-point Likert scale, from "not at all" to "severely." In the Italian sample, the alarm threshold is at the clinical cut-off of 13. In the current study, the internal consistency reliability was $\alpha = .95$.

Suicidal ideation. One question assessed suicide ideation linked to transgender identity. Participants were asked whether, due to their gender identity or expression, they have seriously thought about committing suicide. Response options were "yes" or "no."

Resilience. The Resilience Scale (RS; Wagnild & Young, 1993; Italian adaptation by Peveri, 2009) is a 10-item measure assessing the levels of one's own resilience on a 7 point-Likert scale, from "strongly agree" to "strongly disagree." Example item is "my life is meaningful." The internal consistency reliability was in the current study was $\alpha = .90$.

Social support. The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1998; Italian adaption by Prezza & Principato, 2002) is a 12-item scale assessing the level of perceived support on a 7-point Likert scale, from "very strongly disagree" to "very strongly agree." This measure consists of three scales: 1) Family (e.g. "My family really tries to help me"), 2) Friends (e.g. "I can count on my friends when things go wrong"), and 3) Significant others (e.g. "There is a special person who is around when I am in need"). In the current study, the internal consistency reliability was $\alpha = .93$, .95, and .92, for the subscales, respectively.

Preliminary and Statistical Analyses

Two measures – EDS and PSS – used in this study were not previously validated in Italy. For this reason, they have been translated into Italian following all the phases suggested by Behling and Law (2000) related to back-translation procedures. Before proceeding with the analyses to verify our hypotheses, Confirmatory Factor Analyses (CFAs) with the Maximum Likelihood estimation with Robust Standard Errors were performed with the aim of assessing goodness of fit of these measures using R-Studio. Model fit was assessed through the following indices (Kline, 1998): Chi Square (χ^2), Root Mean Square Error of Approximation (RMSEA), Standardized Root Mean Square Residual (SRMR), Comparative Fit Index (CFI), and Tucker-Lewis Index (TLI). Specifically, the fit indices of the EDS were $\chi^2/df = 1.74$, $p = .120$; RMSEA = .070; SRMR = .040; CFI = .974; TLI = .962, while that of the PSS were $\chi^2/df = 1.36$, $p = .226$; RMSEA = .049; SRMR = .020; CFI = .995; TLI = .989. Following the suggestions by Hooper, Coughlan, and Mullen (2009), the goodness of fit indices of these measures can be considered acceptable. In addition, CFA was also performed on the measure of general discrimination, which had goodness of fit indices that also can be considered acceptable: $\chi^2/df = 1.49$, $p = .058$; RMSEA = .057; SRMR = .052; CFI = .964; TLI = .946.

Hierarchical multiple linear regression analyses were performed with anxiety and depression measures as they were dependent continuous variables. Hierarchical binary logistic regression analyses were performed with the the suicidal ideation measure as it was a dependent dichotomous variable. In all models of hierarchical regression analyses, we entered demographics in step 1 as covariates, minority stressors (prejudice events, perceived stigma, and internalized transphobia) in step 2, protective factors (resilience and perceived social support) in step 3, and interaction terms between minority stressors and protective factors in step 4. In the current study each interaction term was tested by adding to the model the multiplication of one minority stress measure and one protective factor as hypothesized

moderator. To avoid problems related to collinearity of interaction terms, each of them have been included in separate regression models and scores of independent variables were centered (Aiken & West, 1991). Only significant models were reported. It was not possible to include ethnicity as a control because only 2 participants were non-Caucasian.

Results

We provide results of the analyses in two sections. First, descriptive data about types and level of prejudice events and mental health outcomes are presented. Second, we present results of hypothesis testing, differentiating findings on the basis of the mental health outcomes measured in the study (i.e., anxiety, depression, and suicidal ideation).

Types and Levels of Prejudice Events and Mental Health

The percentages reported in Table 2 refer to specific types of prejudice events that have been experienced by transgender people at least once. To verify if there was a difference between transgender women and men, logistic regressions were performed with gender as an independent variable. The most prevalent type of prejudice event was verbal abuse, followed by troubles in finding a job, troubles in having access to health services, physical abuse, troubles in renting an apartment, layoff, robbery, sexual abuse, and eviction. All prejudice events were more frequently reported by transgender women than men, with the exception of verbal abuse, troubles in finding a job, troubles in having access to health services, and eviction, for which no gender differences resulted significant. With regard to everyday discrimination, we found more everyday discrimination experienced by transgender women than men. Finally, no significant differences in mental health by gender were found. The percentages of anxiety (47%) and depression (63.1%) were very high in both groups, as well as suicide ideation (51.7%). Indeed, these estimates are vastly disproportionate compared to those observed in the general Italian cisgender population by de Girolamo et al. (2005) as part

of the European Study on the Epidemiology of Mental Disorders: lifetime mood disorder (11.1%), anxiety disorder (11.2%), and suicidal ideation (3%).

Minority Stress and Mental Health

Anxiety. Results for regressions of all mental health measures on minority stress processes are reported in Table 3. Demographics were not associated with anxiety in the first step of the model. Introducing minority stressors in step 2 explained 22.8% of variation in anxiety. Specifically, higher scores on everyday discrimination, shame, and alienation were associated with higher scores on anxiety. Adding protective factors in step 3 of the regression model explained an additional 3.2% of the variation in anxiety. Specifically, higher levels of resilience and perceived support from family were associated with lower levels of anxiety. Finally, the addition of the interaction term between everyday discrimination and perceived support from family to the regression model explained an additional 3% of the variation in anxiety. This indicates that family support significantly moderated the association between everyday discrimination and anxiety. Specifically, the association between everyday discrimination and anxiety was significant under conditions of low support (b = -.24; p < .01) and moderate support (b = -.18; p < .05) but not under conditions of high (b = -.03; p = .19) family support. Lastly, the final statistical model for all dimensions accounted for 27.1% of the variance in anxiety.

Depression. Demographics were not associated with depression in the first step of the regression model. Introducing minority stressors variables in step 2 explained 30.8% of variation in depression. Specifically, higher scores on everyday discrimination, shame, and alienation were associated with higher scores on depression, while lower scores on pride with higher scores on depression. Adding protective factors in step 3 of the regression model explained an additional 12.1% of the variance in depression. Specifically, higher levels of resilience and perceived support from family were associated with lower levels of depression.

Finally, the addition of the interaction term between everyday discrimination and resilience to the regression model explained an additional 6% of the variation in depression. This indicates that resilience significantly moderated the association between everyday discrimination and depression. A further investigation of this relationship indicated that the association between everyday discrimination and depression was significant for those with low (b = -.35; p < .05) and moderate levels of resilience (b = -.19; p < .05) but not for with high levels of resilience (b = -.03; p = .12). The final model accounted for 43.1% of the variance in depression.

Suicidal ideation. A logistic regression was performed to examine the effects of minority stressors and protective factors on the likelihood that participants experienced suicidal ideation. This hierarchical logistic regression revealed that at step 1 demographics did not contribute significantly to the regression model. Introducing minority stressors in step 2 explained 21.2% (Nagelkerke R^2) of variation in suicidal ideation and correctly classifying 69.4% of cases. Specifically, everyday discrimination and shame significantly increased the odds of ideating suicide by almost two times. Adding protective factors in step 3 of the regression model also contributed significantly to the regression model, explaining an additional 4.1% of variation in suicidal ideation and correctly classifying 72.3% of cases. Specifically, increasing resilience was associated with a reduction in the likelihood of ideating suicide by almost one. Finally, the addition of the interaction term between everyday discrimination and resilience to the regression model contributed significantly to the regression model explaining an additional 4.3% of variation in suicidal ideation. This result indicates that resilience significantly moderated the association between everyday discrimination and suicidal ideation. A further investigation of this interaction indicated that the association between everyday discrimination and suicidal ideation was significant only for those with low (b = 1.62; p < .05) and moderate levels of resilience (b = .62; p < .05), but

not for those with high resilience (b = -.39; p = .46). The final model explains 29.6% (Nagelkerke R^2) of variation in suicidal ideation, correctly classifying 74.1% of cases.

Discussion

The current study explored types of minority stress reported by Italian transgender people, and their mental health outcomes. Results align with those reported in the literature (primarily U.S.; Bockting et al., 2013; Bradford et al., 2013; Lombardi, Wilchins, Priesing, & Malouf, 2001). In general, our findings indicate that the minority stress model can be usefully applied to Italian transgender people.Thus, this study contributes to the international literature aimed at understanding how minority stress is experienced by transgender people and its impact on their health. Indeed, this study's findings sometimes differ from previous research on minority stress in the transgender population, highlighting the important of testing the minority stress model across differing cultural contexts. At the same time, this is the first study which assesses the minority stress model in Italian transgender people, providing Italian researchers with an overview of the assoications between stress, resilience, and mental health within this population.

Like prior U.S. work, we found high percentages of prejudice events, and that daily discrimination was higher in transgender women than in transgender men (Bockting et al., 2013). As suggested by Bockting et al. (2013), this could be due to the fact that transgender men "pass" more easily than transgender women; transgender men are less easily targeted for overt discrimination, although not protected from perceived stigma.

Regarding mental health problems, we found levels of depressive and anxious symptoms and suicidal ideation generally, although not exactly, aligned with previously published rates in the transgender population (Bockting et al., 2013; Budge, Adelson, & Howard, 2013; Nuttbrock et al., 2010). Briefly, in our total sample, 63.1% and 47% experienced, respectively, depressive and anxious symptoms, and 51.7% suicide ideation.

Bockting et al. (2013) and Budge et al. (2013) found depression-related problems in their respective samples at rates of 44.1% and 51.4%, and rates of anxiety at 33.2% and 48.3%. Considering suicide, Nuttbrock et al. (2010) found that 53% of younger and 53.5% of older transgender participants ideated suicide during the lifespan. Overall, these rates are similar to those observed in our sample. Any differences may be due to contextual or methodological factors that differed in the specific samples or studies.

Our main study findings revealed anxiety, depression, and suicide ideation were significantly and partially explained by minority stress processes. Everyday discrimination was more predictive of all three outcomes than than major life events. Meyer (2003b) affirms that many researchers underestimate the importance of daily discrimination because it would be linked to subjective perceptions rather than the objective reality of the lived event, thus questioning the use of such a measure as an independent variable of the minority stress model. Nevertheless, these forms of discrimination negatively affect many domains of life. Nadal, Rivera, and Corpus (2010) report many types of daily aggression and harassment experienced by sexual and gender minorities during their life-time, correlating them with psycho-physical health problems.

The results support internalized transphobia as an important predictor of mental health. In the current study, shame was a significant predictor for all mental health variables, while alienation predicted anxiety and depression, and pride predicted depression. This finding is in line with the Hendrick and Testa's (2012) claims about the detrimental effects that internalized transphobia has on mental health of transgender people, in the same way as internalized homophobia for lesbian, gay, and bisexual population. There is also evidence that internalized transphobia is associated with suicide attempts (Perez-Brumer et al., 2015) and lower self-esteem (Austin & Goodman, 2017), but more research is needed on how transgender mental health is negatively affected by this internal stressor.

Notably, from our results, passing did not predict negative mental health outcomes. This finding is in line with results obtained by Bockting et al. (2013). A possible explanation is that adopting strategies targeted at not being perceived as transgender would represent a useful coping strategy adopted for protection from adverse outcomes of stigma, rather than a proximal stressor.

Finally, the main moderators between stigma and mental health were perceived support from family, which protected against anxiety, and resilience, which protected against depression and suicide ideation. Only transgender individuals with high levels of family support were protected from the negative effects of everyday discrimination on anxiety. Similarly, only transgender individuals with high levels of resilience were protected from the negative effects of everyday discrimination on depression and suicidal ideation. This indicates the impact of minority stress on mental health is strong and that family and individual resilience might ameliorate it, but only at high levels.

As is the case for sexual minorities, perceived social support represents a notable protective factor for transgender population because it is able to facilitate the management of gender minority stress, increasing more functional ways of coping with distress (Pinto, Melendez, & Spector, 2008). It is noteworthy that, in the current study, among different forms of support, support from family was the only protective factor. To this end, Simons, Schrager, Clark, Belzer, and Olson (2013), recently found that parental support is linked with a higher quality of life among adolescent transgender people recruited in Los Angeles, being associated with higher life satisfaction and lower depressive symptoms. In a recent study by McConnell, Brikett, and Mustansky (2016), on a US sample constituted by 232 LGBT youths aged 16–20 years, youths experiencing lower family support reported greater distress than those with higher family support. Thus, our findings seem to be in line with the prior research. Notwithstanding, in the aforementioned study by Bockting et al. (2013), authors

found that family support was negatively associated with psychological distress, but when they considered different forms of support as moderators between enacted stigma and health, they found that only peer support was significant. This finding is different from that observed in the current study and it may be due to cultural differences. Indeed, in Italy people leave their home at a later age, usually living close to their parents and receiving strong support from them (Santarelli & Cottone, 2009). This general trend could explain the heightened significance of family support for Italian transgender people.

Similarly, resilience demonstrated a key role in moderating the negative effects of stigma on mental health, decreasing the likelihood of developing negative mental health outcomes. This finding is in line with previous research which highlighted that transgender people are able to use both individual-level strategies (e.g., fostering identity pride, self-esteem, personal mastery, self-acceptance, and emotion-oriented coping; Grossman, D'augelli, & Frank, 2011; Singh et al., 2011, 2014) and collective-level actions (e.g., community participation and activism; Singh & McKleroy, 2011) in order to reduce the negative effects of minority stress. Similar to the present findings, Breslow et al. (2015) found that resilience was associated with lower levels of psychological distress, acting as a moderator between minority stress and health. Notwithstanding, in our sample only individual-based resilience was assessed. Future research on the Italian transgender population should assess community-based resilience to determine if it generalizes to Italian context. The results of this research would cast light on how to implement and promote specific changes to social policies that could promote community-level inclusion of a stigmatized population such as Italian transgender people.

Limitations

The current study has important limitations which might affect the generalizability of the findings to the entire Italian transgender population. First, this was a cross-sectional study

which used an online convenience sample. Although minority stress theory highlights stigma or minority stress as the cause of mental health problems, we cannot rule out the possibility that associations due to a third variable, such as gender dysphoria. Future research should use longitudinal designs aimed at assessing the relationship between stigma and mental health over time, and in particular the development of protective factors to cope with stigma.

Second, considering the sample composition, this study reported findings related to individuals who identified with binary gender identities and they cannot be generalized to trans individuals who identify with non-binary identities (e.g., genderqueer, gender fluid). Along the same line, participants were almost exclusively Caucasian individuals and this did not allow exploration of the influence of ethnicity on minority stress processes. This made it impossible for the current study to examine whether findings differed across potentially relevant intersections of race and gender. This limitation highlights that non-Caucasian Italian transgender people are a hard-to-reach population. To this end, Nuccia et al. (2006) highlighted that South American transgender people living in Italy represent a highly vulnerable population because most of them are sex-workers and at risk of sexually transmitted infections and HIV. Prunas et al. (2014), in a study analyzing causes and socio-demographic characteristics of murdered transgender people living in Italy, observed that the large majority of the victims were sex workers from South America. On these grounds, it seems to us necessary to assess minority stress, resilience, and mental health at these intersections. Future research should also assess and address the barriers to accessibility, adopting different forms of recruitment as a result (for a review on the methodological challenges in this research field, see Frost, in press, as well as Smedley & Myer, 2014). A related challenge is conducting this research in an Italian setting where prejudice event measures (like the one we used) have not been previously validated in Italy. As such, our findings related to these measures should be interpreted with caution.

Social and Policy Implications

Our results, aligned with the minority stress model, may have important implications in spite of study limitations. The minority stress model was developed to understand better those factors related to the mental health of sexual and gender minorities that are dependent on social contexts and on the internalization of societal attitudes. The Italian context is not highly inclusive for transgender people, that, in one study, reported the second highest rate of transphobic hate crimes (after Turkey; Prunas et al., 2014). As reported by Hatzenbuehler, Keyes, and Hasin (2009), living in locations where gender identity protection policies are lacking increases the likelihood for mental health problems. For instance, in the present special issue, Hatzenbuehler, Flores, and Gates (in press) examined the health consequences for LGBT people living in communities with high or low levels of support for same-sex marriage (see Fingerhut, Riggle, & Rostosky, 2011, and Herek, 2011, for a review of social and psychological implications of same-sex marriage). They found higher levels of wellbeing in people living in supportive communities, highlighting the effect that local attitudes may have on the health of LGBT individuals.

At institutional and structural level, calling attention to minority stress may promote change in social contexts often oppressive for transgender people, contributing to a more inclusive society. Our minority stress findings, indeed, indicate a need to draft an Italian legislation on transphobic hate crimes. This supportive and protective social policy would contribute to reducing prejudice derived from gender nonconformity and institutional bias. Italian policymakers should focus on gender diversity needs, making this population and their needs more visible. Doing so may limit stigma and mitigate the effects of stigma, both of which limit opportunities, resources, and wellbeing due to social conditions, cultural norms, and institutional policies (Hatzenbuehler & Link, 2014). Promoting change at the individual level is not enough. Rather, this change should be produced at a more systemic level along

institutional channels, through wide-ranging awareness and trainings aimed at changing the socio-cultural climate.

Conclusions

This is the first study to assess minority stress, resilience, and mental health in Italian transgender people. The results suggest that everyday discrimination and internalized transphobia increase depression, anxiety, and suicidal ideation, and that perceived social support from family and resilience significantly ameliorate the impact of minority stress on mental health. These findings are in line with the minority stress model suggesting that this model can be usefully applied to the Italian transgender population.

This study sheds light on the need of promoting resilience and social support as ameliorating factors through psychosocial interventions aimed at reducing gender and sexual minority stress (see Chaudoir, Wang, & Pachankis, in press, for an overview of the most efficient psychosocial interventions). Beyond this, social and public policy initiatives are needed to understand and reduce forms of stigma (individual, interpersonal, and structural; Link & Phelan, 2006) that are widespread in transgender populations and that result in negative physical and mental health outcomes (White Hughto, Reisner &, Pachankis, 2015).

References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.

American Psychological Association. (2015). Guidelines for psychological practice with transgender and gender nonconforming people. *American Psychologist*, *70*(9), 832-864. doi:10.1037/a0039906

Amodeo, A. L., Picariello, S., Scandurra, C., & Valerio, P. (2015). Identity and peer group in transgender people: Some reflections from an Italian experience. *Romanian Journal of Experimental Applied Psychology*, *6*(2), 21-35.

Amodeo, A. L., Vitelli, R., Scandurra, C., Picariello, S., & Valerio, P. (2015). Adult attachment and transgender identity in the Italian context: Clinical implications and suggestions for further research. *International Journal of Transgenderism*, *16*(1), 49-61. doi:10.1080/15532739.2015.1022680

Austin, A. & Goodman, R. (2017). The impact of social connectedness and internalized transphobic stigma on self-esteem among transgender and gender non-conforming adults. *Journal of Homosexuality*, *64*(6), pp. 825-841 doi:10.1080/00918369.2016.1236587

Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology*, *56*(6), 893-897. doi:10.1037/0022-006X.56.6.893

Behling, O., & Law, K. S. (2000). *Translating questionnaires and other research instruments: Problems and solutions*. Thousand Oaks: Sage Publications.

Bockting, W. O., Knudson, G., & Goldberg, J. M. (2006). Counseling and mental health care for transgender adults and loved ones. *International Journal of Transgenderism*, *9*(3/4), 35-82. doi:10.1300/J485v09n03_03

Bockting, W. O., Miner, M., Robinson, B. E., Rosser, B. R. S., & Coleman, E. (2005). *Transgender Identity Survey*. Minneapolis: University of Minnesota, Program in Human Sexuality.

Bockting, W. O., Miner, M. H., Swinburne Romine, R. E., Hamilton, A., & Coleman, E. (2013). Stigma, mental health, and resilience in an online sample of the US transgender population. *American Journal of Public Health, 103*(5), 943-951. doi:10.2105/AJPH.2013.301241

Bradford, J., Reisner, S. L., Honnold, J. A., & Xavier, J. (2013). Experiences of transgender-related discrimination and implications for health: Results from the Virginia Transgender Health Initiative Study. *American Journal of Public Health, 103*(10), 1820-1829. doi:10.2105/AJPH.2012.300796

Breslow, A. S., Brewster, M. E., Velez, B. L., Wong, S., Geiger, L., & Soderstrom, B. (2015). Resilience and collective action: Exploring buffers against minority stress for transgender individuals. *Psychology of Sexual Orientation and Gender Diversity, 2*(3), 253-265. doi:10.1037/sgd0000117

Budge, S. L., Adelson, J. L., & Howard, K. A. S. (2013). Anxiety and depression in transgender individuals: The roles of transition status, loss, social support, and coping. *Journal of consulting and clinical psychology, 81*(3), 545-557. doi:10.1037/a0031774

Chaudoir, S. R., Wang, K., & Pachankis, J. E. (in press). What reduces sexual minority stress? A review of the intervention "toolkit". *Journal of Social Issues*.

Clements-Nolle, K., Marx, R., Guzman, R., & Katz, M. (2001). HIV prevalence, risk behaviors, health care use, and mental health status of transgender persons: Implications for public health intervention. *American Journal of Public Health, 91*(6), 915-921. doi:10.2105/AJPH.91.6.915

Clements-Nolle, K., Marx, R., & Katz, M. (2006). Attempted suicide among transgender persons: The Influence of gender-based discrimination and victimization. *Journal of Homosexuality, 51*(3), 53-69. doi:10.1300/J082v51n03_04

Colizzi, M., Costa, R., & Todarello, O. (2014). Transsexual patients' psychiatric comorbidity and positive effect of cross-sex hormonal treatment on mental health: Results from a longitudinal study. *Psychoneuroendocrinology, 39*, 65-73. doi:10.1016/j.psyneuen.2013.09.029

de Girolamo, G., Polidori, G., Morosini, P., Mazzi, F., Serra, G., Scarpino, V., … Rossi, A. (2015). Prevalenza dei disturbi mentali comuni in Italia, fattori di rischio, stato di salute ed uso dei servizi sanitari. Il progetto ESEMeD-WMH [Prevalence of common mental disorders in Italy, risk factors, health status, and health services use: the ESEMeD-WMH project]. *Epidemiologia e Psichiatria Sociale*, *4*(14), 1-100.

Fava, G. A. (1981). *Versione italiana del CES-D per la valutazione degli stati depressivi* [*Italian version of CES-D for the assessment of depression*]. Firenze: Organizzazioni Speciali.

Fingerhut, A. W., Riggle, E. D. B., & Rostosky, S. S. (2011). Same-sex marriage: The social and psychological implications of policy and debates. *Journal of Social Issues, 67*(2), 225-241. doi:10.1111/j.1540-4560.2011.01695.x

Fisher, A. D., Bandini, E., Casale, H., Ferruccio, N., Meriggiola, M. C., Gualerzi, A., … Maggi, M. (2013). Sociodemographic and clinical features of Gender Identity Disorder: An Italian multicentric evaluation. *The Journal of Sexual Medicine, 10*(2), 408-419. doi:10.1111/j.1743-6109.2012.03006.x

Frost, D. M. (in press). The benefits and challenges of health disparities and social stress frameworks for research on sexual and gender minority health. *Journal of Social Issues*.

Gerini, G., Giaretton, F., Trombetta, C., & Romito, P. (2009). Violenza, discriminazione e salute mentale in un campione di pazienti transessuali [Violence, discrimination, and mental health in a sample of transsexual patients]. *Rivista di Sessuologia, 33*(4), 236-245.

Graham, J. W. (2012). Multiple Imputation and Analysis with SPSS 17-20. In J. W. Graham (Ed.), *Missing Data. Analysis and Design* (pp. 111-131). New York: Springer.

Grossman, A. H., D'augelli, A. R., & Frank, J. A. (2011). Aspects of psychological resilience among transgender youth. *Journal of LGBT Youth, 8*(2), 103-115. doi:10.1080/19361653.2011.541347

Hatzenbuehler, M. L., Flores, A. R., & Gates, G. J. (in press). Social attitudes regarding same-sex marriage and LGBT health disparities: Results from a national probability sample. *Journal of Social Issues*.

Hatzenbuehler, M. L., Keyes, K. M., & Hasin, D. S. (2009). State-level policies and psychiatric morbidity in lesbian, gay, and bisexual populations. *American Journal of Public Health, 99*(12), 2275-2281. doi:10.2105/AJPH.2008.153510

Hatzenbuehler, M. L., & Link, B. G. (2014). Structural stigma and the health of lesbian, gay, and bisexual populations. *Current Directions in Psychological Science, 23*(2), 127-132. doi:10.1177/0963721414523775

Hendricks, M. L., & Testa, R. J. (2012). A conceptual framework for clinical work with transgender and gender nonconforming clients: An adaptation of the minority stress model. *Professional Psychology: Research and Practice, 43*(5), pp. 460-467. doi:10.1037/a0029597

Herek, G. M. (2011). Anti-equality marriage amendments and sexual stigma. *Journal of Social Issues, 67*(2), pp. 413-426. doi:10.1111/j.1540-4560.2011.01705.x

Hooper, D., Coughlan, J., & Mullen, M. R. (2009). Structural equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods*, *6*(1), 53-60.

Institute of Medicine (IOM) (2011). *The Health of Lesbian, Gay, Bisexual, and Transgender People: Building a Foundation for Better Understand*. Washington DC: The National Academies Press.

Kline, R. B. (1998). *Principles and Practice of Structural Equation Modeling*. New York: Guilford Press

Link, B. G. (1987). Understanding labeling effects in the area of mental disorders: An assessment of the effects of expectations of rejection. *American Sociological Review*, *52*(1), 96-112.

Link, B. G., & Phelan, J. C. (2006). Stigma and its public health implications. *Lancet*, *367*(9509), 528-529. doi:10.1016/S0140-6736(06)68184-1

Lombardi, E. (2009). Varieties of transgender/transsexual lives and their relationship with transphobia. *Journal of Homosexuality*, *56*(8), 977-992. doi:10.1080/00918360903275393

Lombardi, E. L., Wilchins, R. A., Priesing, D., & Malouf, D. (2001). Gender violence. *Journal of Homosexuality*, *42*(1), 89-101. doi:10.1300/J082v42n01_05

McConnell, E. A., Brikett, M., & Mustansky, B. (2016). Families matter: Social support and mental health trajectories among lesbian, gay, bisexual, and transgender youth. *Adolescent Health, 59*(6), 674-680. doi:10.1016/j.jadohealth.2016.07.026

Meyer, I. H. (2003a). Prejudice, social stress, and mental health in lesbian, gay and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin, 129*(5), 674-697. doi:10.1037/0033-2909.129.5.674

Meyer, I. H. (2003b). Prejudice as stress: Conceptual and measurement problems. *American Journal of Public Health, 93*(2), 262-265. doi:10.2105/AJPH.93.2.262

Meyer, I. H. (2007). Prejudice and discrimination as social stressors. In I. H. Meyer, & M. E. Northridge (Eds.), *The Health of Sexual Minorities: Public Health Perspectives on Lesbian, Gay, Bisexual and Transgender Populations* (pp. 242-267). New York: Springer.

Meyer, I. H. (2015). Resilience in the study of minority stress and health of sexual and gender minorities. *Psychology of Sexual Orientation and Gender Diversity*, *2*(3), 209-213. doi:10.1037/sgd0000132

Meyer, I. M., Schwartz, S., & Frost, D. M. (2008). Social patterning of stress and coping: Does disadvantaged social statuses confer excess exposure and fewer coping resources? *Social Science & Medicine, 67*(3), 368-379. doi:10.1016/j.socscimed.2008.03.012

Nadal, K. L., Rivera, D. P., & Corpus, M. J. H. (2010). Sexual orientation and transgender microaggressions. Implications for mental health and counseling. In D. W. Sue (Ed.), *Microaggressions and Marginality. Manifestations, Dynamics and Impact* (pp. 217-240). New Jersey: John Wiley & Sons.

Nuccia, S., Graifemberghi, S., El Hamad, I., Minelli, A., Magri, S., & Matteelli, A. (2006). Prevalence and incidence of syphilis among South American transgender sex workers in Northern Italy. *Sexually Transmitted Diseases*, *33*(5), 334-335. doi:10.1097/01.olq.0000218866.05205.e2

Nuttbrock, L., Hwahng, S., Bockting, W. O., Rosenblum, A., Mason, M., Macri, M., & Becker, J. (2010). Psychiatric impact of gender-related abuse across the life course of male-to-female transgender persons. *Journal of Sex Research*, *47*(1), 12-23. doi:10.1080/00224490903062258

Perez-Brumer, A., Hatzenbuehler, M. L., Oldenburg, C. L., & Bockting, W. O. (2015). Individual- and structural-level risk factors for suicide attempts among transgender adults. *Behavioral Medicine, 41*, 1-8. doi:10.1080/08964289.2015.1028322

Peveri, L. (2009). *Resilienza e regolazione delle emozioni. Un approccio multimodale* [*Resilience and emotions regulation. A multimodal approach*] (Doctoral dissertation). Milano: Università degli Studi Di Milano - Bicocca.

Pflum, S. R., Testa, R. J., Balsam, K. F., Goldblum, P. B., & Bongar, B. (2015). Social support, trans community connectedness, and mental health symptoms among transgender and gender nonconforming adults. *Psychology of Sexual Orientation and Gender Diversity, 2*(3), 281-286. doi:10.1037/sgd0000122

Pinto, R. M., Melendez, R. M., & Spector, A. Y. (2008). Male-to-female transgender individuals building social support and capital from within a gender-focused network. *Journal of Gay and Lesbian Social Services, 20*(3), 203-220. doi:10.1080/10538720802235179

Prezza, M., & Principato, C. (2002). La rete sociale e il sostegno sociale [Social network and social support]. In M. Prezza, & M. Santinello (Eds.), *Conoscere la comunità. L'analisi degli ambienti di vita quotidiana* [*Knowing the community. The analysis of daily life environments*] (pp. 193-233). Bologna: Il Mulino.

Prunas, A., Clerici, C. A., Veneroni, L., Muccino, E., Gentile, G., & Zoia, R. (2014). Transphobic murders in Italy: An overview of homicides in Milan (Italy) in the last two decades (1993-2012). *Interpersonal Violence, 30*(16), 2872-2885. doi:10.1177/0886260514554293

Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385-401.

Santarelli, E. & Cottone, F. (2009). Leaving home, family support and intergenerational ties in Italy: Some regional differences. *Demographic Research, 21*(1), 1-22.

Scandurra, C., Amodeo, A. L., Bochicchio, V., Valerio, P., & Frost, D. M. (2017). Psychometric characteristics of the Transgender Identity Survey in an Italian sample: A measure to assess positive and negative feelings towards transgender identity. *International Journal of Transgenderism, 18*(1), 53-65. doi:10.1080/15532739.2016.1241975

Sica, C., Coradeschi, D., Ghisi, M., & Sanavio, E. (2006). *Beck Anxiety Inventory. Manuale* [*Manual of Beck Anxiety Inventory*]. Firenze: Organizzazioni Speciali.

Simons, L., Schrager, S. M., Clark, L. F., Belzer, M., & Olson, J. (2013). Parental support and mental health among transgender adolescents. *Journal of Adolescent Health, 53*(6), 791-793. doi:10.1016/j.jadohealth.2013.07.019

Singh, A. A., Hays, D. G., & Watson, L. S. (2011). Strength in the face of adversity: Resilience strategies of transgender individuals. *Journal of Counseling & Development, 89*(1), 20-27. doi:10.1002/j.1556-6678.2011.tb00057.x

Singh, A., & McKleroy, V. S. (2011). "Just getting out of bed is a revolutionary act": The resilience of transgender people of color who have survived traumatic life events. *Traumatology, 17*(2), 34-44. doi:10.1177/1534765610369261

Singh, A. A., Meng, S. E., & Hansen, A. W. (2014). "I am my own gender": Resilience strategies of trans youth. *Journal of Counseling and Development, 92*(2), 208-218. doi:10.1002/j.1556-6676.2014.00150.x

Smedley, B. D., & Myers, H. F. (2014). Conceptual and methodological challenges for health disparities research and their policy implications. *Journal of Social Issues, 70*(2), 382-391. doi:10.1111/josi.12065

Testa, R. J., Sciacca, L. M., Wang, F., Hendricks, M. L., Goldblum, P., Bradford, J., & Bongar, B. (2012). Effects of violence on transgender people. *Professional Psychology: Research and Practice*, *43*(5), 452-459. doi:10.1037/a0029604

Testa, R. J., Habarth, J., Peta, J., Balsam, J., & Bockting, W. O. (2015). Development of the Gender Minority Stress and Resilience Measure. *Psychology of Sexual Orientation and Gender Diversity*, *2*(1), 65-77. doi:10.1037/sgd0000081

Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the resilience scale. *Journal of Nursing Measurement*, *1*(2), 165-178.

White Hughto, J. M., Reisner, S. L., & Pachankis, J. E. (2015). Transgender stigma and health: A critical review of stigma determinants, mechanisms, and interventions. *Social Science and Medicine*, *147*, 222-231. doi:10.1016/j.socscimed.2015.11.010

Williams, S. L., & Mann, A. K. (in press). Sexual and gender minority health disparities as a social issue: How stigma and intergroup relations can explain and reduce health disparities. *Journal of Social Issues*.

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, *52*(1), 30-41. doi:10.1207/s15327752jpa5201_2

Zimmerman, M. A. (2013). Resiliency theory: A strengths-based approach to research and practice for adolescent health. *Health Education & Behavior*, *40*(4), 381-383. doi:10.1177/1090198113493782

Table 1

Socio-Demographic Characteristics Among "Trans Life Survey" Participants (N = 149)

Characteristics	Total (*N* = 149) *n*(%) or *M*±*SD*	Male to female (*n* = 75) *n*(%) or *M*±*SD*	Female to male (*n* = 74) *n*(%) or *M*±*SD*	*P*
Age	33.18±10.96	37.21±12.24	29.22±7.77	<.001
Race/ethnicity				
Caucasian	147(98)	74(98.7)	73(98.6)	.368
Afro-American	1(0.7)	1(1.3)	–	
Latin	1(0.7)	–	1(1.4)	
Education				.552
≤ High school	106(71.1)	55(73.3)	51(68.9)	
≥ College or other	43(28.9)	20(26.7)	23(31.1)	
Monthly income (2013) €*[a]				.492
No income	59(39.6)	30(40)	29(39.2)	
< 600	24(16.1)	12(16)	12(16.2)	
600 – 999	31(20.8)	12(16)	19(25.7)	
1000 – 1999	20(13.4)	10(13.3)	10(13.5)	
2000 >	15(10.1)	11(14.6)	4(5.4)	
Marital status				.004
Unmarried	127(85.2)	56(74.7)	71(95.9)	
Married	9(6)	7(9.3)	2(2.7)	
Widowed	2(1.3)	1(1.3)	1(1.4)	
Divorced	3(2)	3(4)	–	
Separated	8(5.4)	8(10.7)	–	
Community				.768
Urban	111(74.5)	55(73.3)	56(75.7)	
Suburban	19(12.8)	9(12)	10(13.5)	
Rural	19(12.8)	11(14.7)	8(10.8)	
Religious education				.247
Yes	109(73.2)	58(77.3)	51(68.9)	
No	40(26.8)	17(22.7)	23(31.1)	

M = Mean; *SD* = Standard Deviation

Note. Group differences in age were assessed using the Student's *t* test for independent samples. Group differences in all other variables were assessed through the χ^2 test.

[a]The monthly income has been asked in according to the ranges used by the National Institute of Statistic (ISTAT).

Table 2

Percentages of Prejudice Events, Perceived Stigma, and Mental Health Problems Among "Trans Life Survey" Participants (N = 149)

	Male to female (*n* = 74) *n*(%) or *M*±*SD*	Female to male (*n* = 75) *n*(%) or *M*±*SD*	Total (*N* = 149) *n*(%) or *M*±*SD*	*OR* (*95%CI*) or *t* (*df*)	*p*
Layoff	25(33.3)	13(17.6)	38(25.5)	0.43 (0.20, 0.92)	.029
Troubles in finding a job	47(62.7)	53(71.6)	100(67.1)	1.50 (0.75, 2.99)	.246
Troubles in renting an apartment	31(41.3)	17(23)	48(32.2)	0.42 (0.21, 0.86)	.018
Eviction	17(22.7)	9(12.2)	26(17.4)	0.47 (0.20, 1.14)	.096
Troubles in the access to health services	27(36)	36(48.6)	63(42.3)	1.68 (0.87, 3.24)	.119
Robbery	28(37.3)	7(9.5)	35(23.5)	0.17 (0.07, 0.43)	<.001
Verbal abuse	55(73.3)	52(81.3)	107(71.8)	0.86 (0.42, 1.76)	.678
Physical abuse	34(45.3)	21(28.4)	55(36.9)	0.48 (0.24, 0.94)	.033
Sexual abuse	19(25.3)	8(10.8)	27(18.1)	0.36 (0.14, 0.88)	.025
Everyday discrimination	2.06±.77	1.78±.66	1.92±.73	2.44(147)	.016
Anxiety >13[a]	32(42.7)	38(51.4)	70(47)	1.42 (0.74, 2.71)	.289
Depression >16[b]	49(65.3)	45(60.8)	94(63.1)	0.82 (0.42, 1.60)	.568
Suicidal ideation	37(50)	40(53.3)	77(51.7)	0.87 (0.46, 1.66)	.684

M = Mean; *SD* = Standard Deviation; *OR* = Odds Ratio; *CI* = Confidence Interval; *t* = T Test; *df* = degrees of freedom

[a] Clinical cut-off for anxiety individuated by Sica et al. (2006); [b] Clinical cut-off for depression individuated by Clements-Nolle et al. (2001)

Table 3

Regressions of Mental Health Measures on Minority Stress Processes Among "Trans Life Survey" Participants (N = 149)

	Anxiety[a]			Depression[a]			Suicide ideation[b]		
	B	*SE*	*95% CI*	*B*	*SE*	*95% CI*	*OR*	*SE*	*95% CI*
Step 1: Control variables									
Gender (FtM)	3.19	2.52	-1.78, 8.17	1.58	2.08	-2.52, 5.69	0.86	0.44	0.36, 2.04
Age	-0.19	0.13	-0.45, 0.07	-0.01	0.11	-0.22, 0.21	0.99	0.02	0.95, 1.04
Education (≤ high school)	-1.74	2.57	-6.80, 3.31	-0.86	2.10	-5.02, 3.29	1.72	0.45	0.72, 4.12
Monthly income	-1.53	0.92	-3.34, 0.29	-1.79	0.76	-3.29, 0.29	0.86	0.16	0.63, 1.17
Marital status (unmarried)	0.32	1.28	-2.13, 2.78	0.09	1.07	-1.98, 2.16	1.19	0.23	0.77, 1.85
Community (urban)	-1.35	1.65	-4.61, 1.90	-0.07	1.36	-2.75, 2.61	1.39	0.29	0.78, 2.48
Religious education	-3.33	2.63	-8.45, 1.78	-2.89	2.16	-7.10, 1.33	1.01	0.46	0.41, 2.43
	R^2 = .046			R^2 = .047			R^2 = .073; χ^2 = 8.33		
Step 2: Minority stressors									
Prejudice events	0.79	0.63	-2.03, 0.44	0.84	0.53	-1.87, 0.19	0.99	0.11	0.80, 1.24
EDS	6.25**	1.01	-1.68, 9.83	3.71*	1.46	-0.04, 7.46	1.90*	1.14	0.83, 4.36
Perceived stigma	2.33	1.73	-1.07, 5.72	0.50	1.44	-3.33, 2.33	0.96	0.31	0.52, 1.75
Pride	-0.67	1.07	-2.77, 1.44	-2.04*	0.88	-3.77,-0.31	0.72	0.19	0.49, 1.05
Shame	0.89*	1.33	-1.70, 3.48	2.22	1.09	-0.09, 4.36	1.70*	0.23	1.08, 2.68
Passing	0.65	1.08	-1.47, 2.79	0.27	0.87	-1.45, 1.99	0.95	0.18	0.66, 1.36
Alienation	2.16**	0.74	0.70, 3.61	1.33*	0.60	0.13, 2.52	1.03	0.13	0.80, 1.32
	R^2 = .228; ΔR^2 = .210***			R^2 = .308; ΔR^2 = .280***			R^2 = .212; χ^2 = 17.18***		
Step 3: Protective factors									
Resilience	-1.71*	1.26	-4.21, 0.78	-5.19**	1.15	-7.25,-3.13	0.85*	0.81	0.54, 1.36
MSPSS family	-1.34*	1.79	-2.67, 0.01	-1.05*	0.55	-2.14, 0.04	0.86	0.12	0.68, 1.08
MSPSS friends	-0.08	1.03	-1.89, 2.05	-0.05	0.89	-1.75, 1.66	1.19	0.19	0.83, 1.73

MSPSS significant others	-0.97	1.06	-1.13, 3.07	-0.50	0.89	-1.25, 2.25	1.29	0.19	0.90, 1.87
	R^2 = .241; ΔR^2 = .032***			R^2 = .425; ΔR^2 = .121***			R^2 = .253; χ^2 = 5.44***		
Step 4: Interaction terms									
EDS X MSPSS family	-0.30*	0.92	-1.77, 1.84	–	–	–	–	–	–
EDS X Resilience	–	–	–	-0.40*	1.37	-2.29, 3.09	0.39*	0.41	0.18, 0.89
	R^2 = .271; ΔR^2 = .030***			R^2 = .431; ΔR^2 = .060***			R^2 = .296; χ^2 = 5.99***		

***p < .001 **p < .01 *p < .05

B = Standardized regression coefficient; *SE* = Standard Error; *CI* = Confidence Interval; *OR* = Odds Ratio; R^2 = R-Square; ΔR^2 = Change in R^2; χ^2 = Chi-Square of each block; EDS = Everyday Discrimination Scale; MSPSS = Multidimensional Scale of Perceived Social Support.

[a] Results obtained from hierarchical multiple linear regression models; [b] Results obtained from hierarchical logistic regression models

Author Bios

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David M. Frost, Ph.D., is a Senior Lecturer in Social and Health Psychology at the School of Psychology of the University of Surrey. His primary line of research focuses on how stigma, prejudice, and discrimination constitute minority stress, affecting the health of marginalized individuals. He also studies how couples psychologically experience intimacy within long-term romantic relationships and how intimacy affects their health. These two lines of research combine within recent projects examining same-sex couples' experiences of stigmatization and the resulting impact on their relational, sexual, and mental health.