



Minority stress and health: A grounded theory exploration among men who have sex with men in China and implications for health research and interventions



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ABSTRACT

Rationale: Men who have sex with men (MSM) in China are disproportionately affected by HIV and mental health issues. Although predominately western-based research suggests a minority stress perspective to explain health disparities, how Chinese MSM experience stress related to being a sexual minority and how such experiences affect their health have not been carefully examined. **Objective:** This study was a qualitative investigation of how stress related to sexuality (e.g., stigma, discrimination, and oppression) are experienced among MSM in China and how these experiences affect their psychological and behavioral health.

Method: In-depth, semi-structured interviews were conducted with 24 MSM in China. Grounded theory was employed to guide data analysis.

Results: Six categories emerged, which included: A Family-Oriented, Heteronormative Culture, Interpersonal Rejections and Marginalization, Internalization of Stigma, the Psychological Impact of Minority Stress, Impact on HIV-related Behavioral Health, and Coping. A conceptual model was developed, which illustrated relationships among categories and described sources, processes, and impact of minority stress among MSM in China. Cultural, social, and internalized sources of minority stress were shown to have detrimental effects on participants' psychological health and HIV-related behavioral health. Various coping strategies shared the purpose of navigating well-being in one's direct environment and in the larger culture.

Conclusions: Findings demonstrate the relevance of minority stress in behavioral health among Chinese MSM as well as the need to conceptualize minority stress within MSM's sociocultural context. HIV prevention efforts may benefit from a contextualized understanding of minority stress and addressing minority stress in a culturally congruent, community-centered fashion.

1. Introduction

Globally, men who have sex with men (MSM) experience significantly poorer mental health and greater risk for sexually transmitted illnesses such as HIV, when compared to their heterosexual counterparts (Beyrer et al., 2012; King et al., 2008). As the world's most populous country, China is estimated to be home to 10–25 million MSM (Zhang and Chu, 2010). China has experienced an alarming uptrend of HIV among MSM: between 1985 and 2005, MSM accounted for 0.3% of all HIV cases yet this rate reached 25.8% in 2014 (National Health and

Family Planning Commission of China, 2015). However, HIV testing among MSM in China is insufficient and sexual behaviors linked to HIV risk (e.g., condomless anal sex) are prevalent in MSM in China (Zou et al., 2012). Moreover, Chinese MSM experience elevated rates of mental health issues compared to their heterosexual peers, including depression, anxiety, and suicidality (Chen et al., 2015; Yu et al., 2013). Such mental health disparities are concerning, as they contribute to “syndemic” conditions surrounding HIV risk behaviors and comprise the uptake and adherence of behavioral health interventions for MSM (Mustanski et al., 2014; Safren et al., 2010).

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The adverse health effects experienced by sexual minorities has been attributed to the unique stressors that these individuals experience due to their sexual minority status (Diplacido, 1998; Meyer, 2003). This perspective, also termed minority stress, suggests that individuals' experiences of adverse social conditions due to being a minority, such as discrimination, prejudice, and stigma, create a hostile environment that harms their health (Meyer, 2003). According to Meyer (2003), sexual minorities experience external (or distal) stressors such as discrimination and victimization, which impacts individuals' health through activating and heightening internal (or proximal) stressors such as expectation of rejections, identity concealment, and internalized homonegativity. While empirical research concerning MSM has largely supported this theory (Hatzenbuehler, 2009; Newcomb and Mustanski, 2010; Pachankis et al., 2018), this evidence comes primarily from samples in western countries. The lack of cross-cultural research concerning the stress-related processes among sexual minorities limits the applicability of the minority stress perspective in reducing the burden of mental health issues and the ongoing HIV epidemic among MSM globally.

Specific to Chinese MSM, a careful examination of their experiences can shed light on the role that stress related to sexual orientation may play in fueling health disparities in the Chinese context. A cross-cultural, contextualized understanding is important, given that the minority stress perspective is context-driven. The sociocultural context of China may give rise to unique experiences of stigma. Although same-sex behaviors among men were more tolerated in pre-modern Chinese societies, same-sex behaviors were ideologized in the 20th century and punished by law for periods of time (Wu, 2003). Between the 1950s and 1990s, China adopted early Western psychiatry's view of homosexuality as a mental illness (Zhang and Chu, 2010). While "homosexuality" was legalized in 1997 and removed as a psychiatric diagnosis in 2001, the view that same-sex attraction is unethical and pathological has persisted in China (Wu, 2003; Zhang and Chu, 2010). Recent years have witnessed more visibility of the MSM, or comrade (*tong zhi*, 同志, referring to LGBTQ people in China) community in China, with the rise of the global LGBTQ movement, yet its development has been restricted by structural challenges such as state censorship (Kong, 2010).

Recent research suggests the relevance of stigma when conceptualizing the health of Chinese MSM. Extant research is mostly quantitative and has focused on sexual behaviors that elevate HIV risk and HIV testing (Choi et al., 2017; Sun et al., 2020a,b), and to a lesser extent mental health (Choi et al., 2016; Liu et al., 2018; Shao et al., 2018). Limited qualitative research also reveals the relevance of stigma among Chinese MSM. A study on Chinese MSM's marriage decision-making suggested the importance of stigma and filial duty (Steward et al., 2013). Another study on MSM community in Chengdu, China described sources of stigma including family, society, and the MSM community (Feng et al., 2010). Two studies regarding sexual practices among Chinese MSM noted the relevance of sociocultural factors along with stigma (He et al., 2017; H. Li et al., 2010).

1.1. The present study

The research highlighted above demonstrates the relevance and significance of stigma which justifies specific research focused on minority stress in Chinese MSM. In particular, despite recent studies that have confirmed that discrimination and stigma are associated with poorer well-being among Chinese MSM, research has only focused on limited parts of health outcomes or stress experiences. Thus, research has yet to comprehensively examine how Chinese MSM experience stress specific to sexual orientation/identity in their sociocultural context and how such experiences impact their mental and behavioral health. Qualitative, in-depth research is well-suited to address this gap and form a contextualized understanding of minority stress for this population. Such an understanding will be essential to inform prevention and intervention efforts, public health policy, and have

implications on how experiences of minority stress may be situated culturally. Given the adverse health outcomes in this population, this qualitative study focuses on two research questions:

- (1) How do men who have sex with men in China experience stress related to their sexual orientation/identity?
- (2) How do these experiences affect their psychological and behavioral health?

2. Method

Grounded Theory (GT) (Charmaz, 2014) was used for three reasons. First, GT aims to "describe and conceptualize people's views, actions, and life experiences within the context in which they lived" (Tweed and Charmaz, 2012, p.131), ensuring a participant-centered understanding that gives voice to those in the community. Second, there are no established models on stress specific to minority status among Chinese MSM, and GT is prescribed when theory and research are under-defined. Finally, GT does not merely focus on individual experiences but aims to inductively develop a theory that reveals emerging patterns and explains key processes. Thus, GT has the potential to produce a theory that is grounded in the data and generates knowledge that gives insight to the psychological and social processes of minority stress and how these experiences impact mental and behavioral health among Chinese MSM.

2.1. Recruitment

The study was approved by the Education and Social/Behavioral Science Institutional Review Board (IRB) at the University of Wisconsin-Madison. Information about the study was promoted on LGBTQ websites and WeChat (Chinese social media), including the participation criteria: (1) at least 18 years old; (2) Mandarin Chinese speaking, and (3) self-identify as a Chinese male sexual minority or a man who has sex with men, such that they experience persistent attractions to men and engage in consensual sex with men. Interested individuals were encouraged to contact the interviewer for further information and to schedule an in-person meeting. Interviews took place in Beijing, the capitol of China and Wuhan, the capitol city of the Hubei Province in central China.

2.2. Interview protocol

All interviews were conducted by the first author who grew up in China and speaks Mandarin as her native language. Prior to interviewing, participants were provided with informed consent with an opportunity to seek additional information or clarification. Interviews lasted 50–90 min. Participants received 200 RMB (32 USD) per interview for compensation. Interviews were completed during October 2016–April 2017. All interviews were recorded and professionally transcribed in Chinese.

Based on Strauss and Corbin's (1988) suggestions on a tunnel approach to interview questions, interviews started with an open-ended question asking participants how they identify or to describe their sexuality and other important aspects about themselves that they would like to share. Interviews focused on participants' life experiences as a sexual minority man, potential experiences of stress related to sexuality (e.g., "Some say being a _ (participant's label) is hard because they need to deal with additional stress related to this status. What is your experience in this regard?"), and how these experiences might have affected their well-being (e.g., "How do these experiences of _ (summarize participants' description) affect your psychological and sexual health?").

Cultural sensitivity was attended to throughout the study. During the research formation stage, we sought discussion with the community (at the Beijing LGBT Center) and service providers (mental health and

Table 1
Demographics of participants (n = 24).

Name	Age	Self-described Sexual Orientation	Relationship Status	Occupation
Cheng	23	Comrade/Gay	In relationship with a man	Works in a non-profit organization
Ming	35	Comrade/Gay	Cohabitated with a man	Works in a non-profit organization
Fung	23	Sexually fluid	Single	In college
Hao	38	Gay, unsure if bisexual	Single	Salesman
Hyson	32	Gay	Married to a woman	Entrepreneur
Jin	25	Gay	Single	Graduate student
Ju-long	50	Gay and "psychologically female"	Single	Worked in military
Kong	79	Bisexual	Married to a woman	Retired
Yan-yan	35	Gay and "internally female"	Single	Cross-dressing performer
Ning	25	"Shou", "prefers men", and "identity unsure"	Single	Unemployed
Peng	28	Undecided between gay and asexual	Single	Graduate student
Han	29	Gay	Single	Works in a company
Rong	30	Gay	Single	Works in a company
Shin	21	Gay	Single	College student
Tong	36	Gay	In relationship with a man	High school teacher
Jerin	24	Gay	Married to a man	Preparing to be a government official
Kenshin	33	Gay	Single	Medical doctor
Lee	36	Non-labeled	Single	Entrepreneur
Muchi	28	Gay	In relationship with a man	Works for HIV education and advocacy
Niran	20	Gay	Single	Teacher
Naoki	30	Gay	Single	Works in a company
Ren-shu	27	Gay	Single	Works in a company
Sung	24	Bisexual	Single	College student
Weng	32	Gay	Single	Works in government

HIV prevention workers) in China to ensure the relevance of study questions. Feedback from stakeholders included: (a) to conduct individual, face-to-face interviews given the topics' sensitivity, (b) to attend broadly to men's health rather than a narrow focus on HIV, and (c) to intentionally include MSM beyond college age (18–25) to better capture diverse experiences of sexual orientation-related stress. During the interviews, the interviewer consistently used participants' language regarding their identities. The interviewer is Chinese, and the shared cultural and linguistic backgrounds between the interviewer and participants helped in building rapport, yet a potential downside was the assumed cultural knowledge. Therefore, we were intentional in exploring the meanings of participants' language with a stance of "not knowing fully," particularly with seemingly well-known culture constructs (e.g., filial piety). To ensure the interview data fully captured participants' experiences, prolonged engagement strategies were used (e.g., soliciting examples, using probes, no time limit for the interview).

2.3. Participants

In total, 24 Chinese MSM participated in the study. Ages ranged from 20 to 79 ($M = 31.8$). Demographic information is presented in Table 1. We reported all salient sexual identities described by participants. A subset of 18 identified as gay or male comrade, two identified as bisexual, one identified as "non-labeled", one was "unsure between being gay and asexual", one identified as "gay but not sure", and one identified as sexually fluid (see Table 1).

Among the 18 individuals who identified as a male comrade or gay man, two disclosed that they "also have a female self" or "[are] internally female." Neither identified as transgender or nonbinary and neither had heard of these terms. We included both participants for two main reasons: (1) both individuals identified and lived as gay men at the time of the interview, and (2) this may reflect gender diversity among self-identified sexual minority men in China, which has implications for future research.

2.4. Data analysis

We analyzed the data in three phases using Charmaz's (2014) approach to grounded theory. First, six research team members formed three groups and performed line-by-line coding on all transcripts.

Members met weekly, in the two-person groups and with the whole research team, to discuss how units of meaning were similar/different from one another. A two-week long cross-group reviewing and auditing process of the coding took place every three weeks so that each group could receive feedback from the team and differences were discussed and resolved. The team also performed comparative analysis to maintain a connection with the data and gain a theoretical understanding of them.

Second, the third and fourth author engaged in focused coding, where they re-read initial codes and interview transcripts to gain further understanding on how to best categorize data incisively and completely. Both members placed line-by-line codes after consensus coding of the first transcript into subcategories and this process was repeated for subsequent transcripts. The first, third, and fourth author met weekly to discuss emerging subcategories and the coding process. Constant comparative analysis was again employed to ensure that the emerging subcategories captured the codes in their full complexity and diversity. Although saturation was reached at interview $n = 22$ (no new concepts or categories emerged), we continued to perform analysis of the final two transcripts due to the notable age diversity within our sample.

Third, with the emerged subcategories, three authors (1st, 3rd, and 4th) performed theoretical coding, which included further organization of subcategories, synthesizing them into categories, and linking relationships among categories on a conceptual level. Collectively, we developed a theoretical model from this process. The model was presented to the entire research team for discussion and feedback.

2.5. Research quality and trustworthiness

Our analysis meets three criteria of trustworthiness including credibility, transferability, and confirmability (Lincoln and Guba, 1985). Credibility was established through prolonged engagement and peer debriefing. Prolonged engagement was performed both during data collection and analysis. During data collection, the interviewer spent a significant amount of time (nine months) residing in China and engaging with the MSM community to immerse herself in the participants' world. Prolonged engaged strategies during the interview were also used (see cultural sensitivity above). Data analysis including transcript reading, coding, and regular team meetings totaled eight

months. Peer debriefing involved sharing and revisions of data analysis and selection of quotes with team members less involved in focused coding and from various disciplines (e.g., sociology, family studies). Transferability was supported by detailed descriptions of methodology and presenting participants' narratives in the context of their lives. Pseudonyms were used to maintain confidentiality and protect the participants' identities.

We demonstrated confirmability through: (a) memo writing and reflective practice, (b) discussion on our potential biases, and (c) peer debriefing to increase our awareness and ensure an accurate understanding and presentation of the data. Team members largely identified as cisgender and were diverse in terms of sexual identities (queer, gay, and heterosexual) and cultural background (e.g., Chinese and American individuals residing in China, U.S., Australia, and Japan). Both prior to and during analysis, we engaged in regular conversations regarding how our worldview and experiences of privilege and oppression in varied contexts may potentially impact data analysis. For instance, several members described feeling the participants' difficulties paralleled with their own. We also noted how all members had engaged in LGBTQ advocacy at varied levels. Thus, we were careful to not draw assumptions or conclusions based on our personal experiences or knowledge informed by prior work.

3. Results

Analysis revealed six overarching categories: A Family-Oriented, Heteronormative Culture, Interpersonal Rejections and Marginalization, Internalization of Stigma, the Psychological Impact of Minority Stress, the Impact on HIV-related Behavioral Health, and Coping. Emerged categories, subcategories, and corresponding number of participants and codes are presented in Table 2. Results are reported based on the order of the theoretical model (see Fig. 1) from left to right (sources of minority stress to impact to coping). Below we represent our conceptual model and categories.

Table 2
Categories and higher order categories.

Category	Subcategories	Participants (n)	Codes (n)
A Heteronormative and Family-Oriented Culture	Forming a heterosexual marriage	22	133
	Conformity and filial piety	19	80
	Family-related purposes for having a child	18	72
	Heteronormative policies	14	47
	Interpersonal Rejections and Marginalization		
	Rejections based on being a sexual minority	16	91
	Social marginalization related to gender expression	7	15
Internalization of Stigma			
	Internalized belief that one is abnormal	12	31
	Fear of stigmatization/rejection	8	19
	Intersectional HIV stigma	6	14
The Psychological Impact of Minority Stress			
	Negative emotions	14	58
	Mental pain	10	56
	Lack of meaning in life	7	25
Impact of HIV-related Behavioral Health			
	Sexual risk contextualized in relationship	14	43
	Avoiding testing	4	9
	Lack of knowledge on HIV	8	17
Coping			
	Concealment or coming out	21	132
	Performing masculinity	13	45
	Social and community support	8	63
	Self-empowerment	7	21
	Advocacy	5	12

3.1. Conceptual model

The conceptual model (Fig. 1) reveals the relationships among categories and reflects the cultural, social, psychological, and behavioral processes of minority stress among Chinese MSM. A heteronormative and family-oriented culture is the context and a major source of minority stress. This culture shapes the nature of interpersonal rejections (i.e., being perceived as abnormal and disobedient) as well as the internalization of stigma (e.g., the belief that one is abnormal). Cultural, social, and internalized sources of minority stress have detrimental effects on MSM's psychological health, including their outlook on life, negative emotional experiences, and a chronic sense of mental pain. Three sources of distress, as well as the consequence of poor psychological health, affect Chinese MSM's HIV-related behavioral health. In facing the challenges on various levels, coping strategies, as illustrated on the right side of the model, share the common goal of navigation and negotiation for well-being in one's direct environment as well as in the larger culture. Coping strategies can mitigate and/or exacerbate the psychological and behavioral health.

3.2. Sources of minority stress

3.2.1. A family-oriented and heteronormative culture

This category was the most extensively discussed. It was described as a source of minority stress, the context of participants' life, and the cause of other sources of minority stress. This category was discussed as *what it means to be a man culturally* and the *subsequent expectations* about their life trajectory based on this social role. Four subcategories included *forming a heterosexual marriage*, *conformity and filial piety*, *family-related purposes for having a child*, and *heteronormative policies*. These subcategories interconnected: a) having a child was considered a necessary product of a marriage, b) the expectation to marry was due to cultural values in conformity and filial piety, and c) the heteronormative policies were a part of, and further reinforced, the culture.

Participants described marriage as inherently heterosexual, a sign of life stability, and proof of "a normal life." Almost all participants ($n = 22$) described experiencing pressure to marry from parents, family members, and society at large. For instance, Kenshin, a 33-year-old gay man, shared:

When I returned to my hometown, my parents said that my life will finally get on the right track and they arranged tons of meetings with women for me. I didn't want to go, but my family would lie, like asking me to go to dinner with them and I'll find out it's a matchmaking date. They gave me all sorts of pressure and told me that I have to date and marry regardless of how I feel.

In traditional Chinese society, marriage was considered a decision made by "parental commands," a process with very little regard to the couple. This tradition is embedded in the idea of filial piety (*Xiao*), which refers to an obedient and self-sacrificing attitude towards one's parents. Participants discussed filial piety as an obligation to fulfill their family duties. As a response, participants sometimes considered forming a fake marriage to pay their filial piety, which we present in the category of Coping.

Participants described having a child as the next step following marriage with purposes tied to a family life, including passing down one's family name through having a son, being looked after in old age, and providing one's parents a fulfilling life by having a grandchild. For example, Lee, a 36-year-old Chinese man who identified as "non-labeled", shared that his parents are "very traditional" and expect him to marry a woman, since the concepts of marriage and passing down one's family name were "in their blood for generations and unchangeable."

Participants considered laws and policies in China a part and a reflection of its heteronormative culture. They discussed current policies as "not explicitly discriminatory" to sexual minorities yet "lacking acknowledgment, inclusion, and protection," such as the lack of

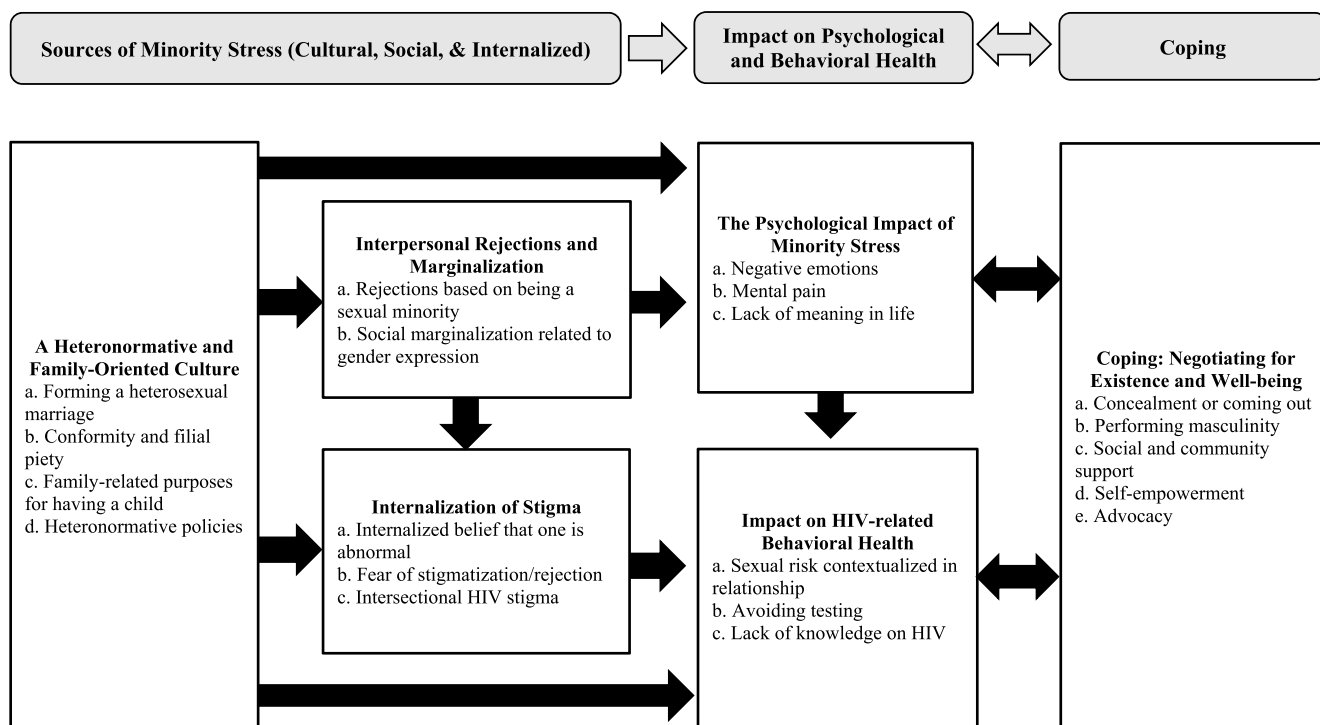


Fig. 1. Theoretical model.

inclusion of sexual minorities in laws regarding marriage, succession, property, and domestic violence. This resulted in participants feeling like they were “living in a shadow.” Meanwhile, they shared significant cultural barriers to equity even if legal protections are advanced. For example, Peng shared,

I think gay marriage legalization is a great thing, but I don't know many gay couples would actually get married because the traditional culture roots here are strong.

3.2.2. Perceived as “abnormal”: interpersonal rejections and marginalization

All participants ($n = 24$) denied experiences of physical violence due to their sexuality (e.g., hate crimes). As society assumes everyone is heterosexual and should behave according to the established social codes (i.e., conformity), being different was perceived as “abnormal” and led to experiences of marginalization and rejections based on (a) sexuality and (b) gender expression. Participants described these experiences in the context of being perceived as “abnormal,” interpreted as “non-mainstream,” a manifestation of an illness (“pathological”), and “mentally disturbed.”

Participants shared experiences of rejection due to their sexual orientation or associated stereotypes. For instance, Anying, a 29-year-old gay man, shared that he was told that he was a “deviant” and “disobeyed the Chinese tradition” by a friend. Muchi, a 28-year-old gay man, noted that he was told that he was “abnormal” and “mentally ill” when coming out as a teenager, which “damaged [his] self-esteem.”

Participants also shared experiences of being marginalized due to gender-related stereotypes for gay men, such as “gay men are not real men” and “all men acting feminine must be gay,” resulting in participants' high self-consciousness about their gender expression. For example, Hao, a 38-year-old gay man, shared experiences of being bullied due to gender expression.

I experienced a lot verbal discrimination, especially in middle school. I remembered being called “hyper-feminine.” When I was yawning, my classmates laughed at me and said that Ms. Lin Daiyu

(a female fiction character) possessed my body ... They said that I was so delicate and emasculated. No boys in my school wanted to be my friend.

3.2.3. Something is wrong with me: internalization of stigma

This category describes the internalization process as a result of the culture participants live in and the direct experiences of discrimination and marginalization. Subcategories include (a) internalized belief that one is abnormal, (b) fear of stigmatization/rejection, and (c) intersectional HIV stigma (simultaneously experiencing stigma related to sexuality and HIV).

Several participants described themselves as “abnormal” especially in the context of first recognizing their attraction to men. Participants shared that even after educating oneself about sexual orientation, the profound feeling of “something is wrong with me” was present. For instance, Naoki shared:

I really isolated myself, because I just felt I am so abnormal. I was denying myself so hard and I did not have anyone to talk about, so I could only suppress my thoughts. I was really scared. I just wanted to deny who I am. Every guy was talking about girls so I felt different and abnormal.

Often what accompanied the belief that one is “abnormal” is social withdrawal (as described by Naoki) and *fear of being rejected and stigmatized* (subcategory b). For instance, Peng noted,

I don't post things about myself on social media. I had a friend who learned about my identity, and our relationship has changed since, not in a good way. Because even though I spend a lot time in school with everyone, I don't really know what they would think about me and if they would have negative attitudes about this.

The third subcategory describes participants' experience of intersectional stigma related to HIV. Specifically, participants talked about HIV with negative stereotypes about gay men, such as “gay men cause HIV” and “gay men are promiscuous and spreading HIV.” For instance, Fung shared:

AIDS is really scary. It's because gay men are too promiscuous—they think they don't need protection because they cannot impregnate anyone. It's horrifying. If you get AIDS, you will never get off this label and there's nothing for you in life anymore.

3.3. Impact on psychological and behavioral health

3.3.1. The psychological impact of minority stress

This category describes the psychological impact as a result of various sources of minority stress. Three subcategories included participants'(a) negative emotions (e.g., shame, inferiority, loneliness), (b) cumulative psychological impact experienced as mental pain, and (c) outlook on life (lack of meaning, feeling aimless).

The direct impact of internalized homophobia (e.g., believing that one is abnormal) is the negative emotional experiences characterized by a sense of shame, inferiority, and loneliness. For instance, Ren-shu, a 27-year-old gay man, shared:

When I started to recognize that I might be gay, what I knew at the time was that it's abnormal and bad. So, I became extremely introverted and ashamed and did not want to talk or go out with anyone. I was really depressed for couple years.

Ren-shu's experience was common among participants: they shared becoming socially withdrawn and isolated, due to feeling abnormal, inferior, or to protect themselves from potential discrimination, yet this could result in more loneliness and marginalization.

The cumulative effect of fear, shame, and isolation from being culturally marginalized as well as socially discriminated, was experienced as “mental pain” among participants. For example, Ju-long explained how these experiences affected his mental health:

On the outside, I am an extravert and quite open. But inside, I have scars. I have a lot mental pain. The first pain is the lack of understanding from society. The second is harm from other people. Because other people may smile on the surface but judge and be unfair to me on the inside. So, in response to discrimination, I can only become more silent, more isolated, and to live with this mental pain.

As the beliefs surrounding forming (a heterosexual) marriage are deeply rooted in daily life, violation of these norms can result in a sense of lacking meanings in life. Participants shared feeling “confused” and “aimless” about their life and family members expressed worries about them “not having a meaningful and fulfilling life” after participants came out. For example, Hanting, a 29-year-old gay man, shared:

I feel lost and confused, even though I have come out. If you are heterosexual, you know what your life is up to. You'll get married and raise children and you plan on buying a house, a car, kids' education, and you'd feel motivated to do these things. But for me, I can't have kids and don't want any, and I don't have the motivation to do any other stuff. I just feel lost—I don't know what I should do with my life.

3.3.2. Impact on HIV-related behavioral health

This category captured the impact of minority stress on participants' behavioral health related to HIV prevention. Three subcategories included: (a) sexual behaviors contextualized in relationships and sex roles, (b) avoidance of HIV testing, and (c) lack of knowledge on HIV.

When discussing sexual behaviors, risk was discussed in the context of participants' relationships. Most participants disclosed they “always use condoms” in casual sex but not with their main partner. Participants discussed sexual relationships based on the understanding that one partner is *Gong* (攻, meaning attack and aggression) and the other is *Shou* (受, meaning submission and allowance). Participants talked about *Gong* and *Shou* corresponding to male and female roles as

heterosexual couples. Jerin noted how it reflects internalized heterosexism:

Gay couples call each other husband and wife. And people assume the passive one in sex must be the female role, although they are not women. Gay couples understand sex and relationships from a heterosexual perspective. It's hard because we don't have another template, so people just follow the heterosexual format.

The lack of a “relationship template” and restraints on marriage contribute to attitudes and community norms regarding sex and relationships. For instance, Cheng, a 23-year-old gay man, shared:

Because gay men cannot get married, there is no “destination” of a relationship, so we do not expect long-term, stable relationship or make effort for it anymore. In my experience, because of this heterosexual culture, sex becomes a goal because we cannot have marriage or other recognized status as a goal. So as gay men, we embrace sex and become promiscuous as a way to compensate the loss of true commitment.

The heterosexist understanding on sex roles also impacts MSM's experiences in condom negotiation. All four participants in our sample who reported being raped or having sexual encounters without consent identified as *Shou*. For example, Ning shared:

Because I am a *Shou*, I used to not have protection at all. If the person I had sex with wanted to put a condom on, I let him. If he didn't have one or didn't want to, I let him as well.

Participants also described avoiding HIV testing due to fear and anxiety. For instance, Hao (38-year-old gay man) noted his fear about HIV:

I haven't tested (for HIV) regularly in recent years. Sometimes I would consider it, but then I'd think, what if I test positive, so better not test at all. At least I feel my health is fine. Where I live is super close to the CDC, so it would only take me minutes to do it. But then I'd think, it's so scary, what if I learn that I have HIV, how can I live my life, I can't even think about it.

For Hao, the lack of testing is not due to access, but intense fear. Similarly, other participants discussed anxiety and fear related to HIV and testing. They shared feelings that their lives “have already been damaged” by being a sexual minority, HIV as a stigmatizing illness can be “the ultimate disaster that ruins [their] life.” Participants shared avoiding HIV/STI testing due to fear of finding out one's status, fear of the CDC disclosing information to others such as their workplace, and difficulty seeking testing with one's doctor due to internalized stigma.

When discussing fear about HIV, many participants had little knowledge of HIV, such as its modes of transmission, treatment, etc. For instance, Sung (24-year-old gay man) noted that although he was “scared to death about HIV,” he “actually knew very little about it.” The direct effect of this intersectional stigma was that participants' regarded HIV as a scary, dramatically catastrophizing event that was impactful yet also distant and low likelihood. For example, Hyson (32-year old gay man) shared that he and his comrade friends would refer to a positive HIV test result as “winning a lottery.” Both fear and the perceived low likelihood of contracting HIV lead one to not seek further information and education on HIV and STIs. For example, Ming shared:

I don't know much about HIV. I guess it's an “information blind spot” for me. Since I haven't had anyone around me die because of it or infected by it, I haven't given it much thought at all.

3.4. Minority stress coping

3.4.1. Coping with minority stress: negotiating for existence and well-being

This category describes participants' coping with experiences of minority stress. A shared thread of all coping strategies is participants'

navigation and negotiation to survive and thrive in a largely heteronormative environment, as presented below.

3.4.2. *“Living under a mask” or coming out*

This subcategory describes a coping process regarding to what degree participants perform a heterosexual life. The concept and action of coming out cannot be separated from the sociocultural context: participants shared feeling conflicted as they did not want to hurt parents' feelings or cause distress by coming out. Some shared negative attitudes toward coming out and considered it a selfish act, intersecting with cultural values of norm conformity, filial piety, and self-sacrifice.

Feelings of guilt for inability to fulfill one's duty as a son also prohibited participants from coming out. Participants shared thoughts on forming a fake marriage, also called “marriage of convenience” — marrying a woman, often a lesbian, to perform a heterosexual life. For instance, Shin, a 21-year-old gay man, noted that he planned to marry a lesbian in order to “reduce the harm [he] causes to [his] parents” due to his sexuality.

Some participants who tried “marriage of convenience,” indicated that it could cause more stress due to the need for further concealment and performance. For instance, Rong, a 30-year-old gay man, shared:

I didn't want others to criticize me or think that I am gay. I had a gay friend who also needed to marry, so we found a lesbian couple. We each married one of them. It's really just to prove to my parents, relatives, and friends. But the actual marriage ... we divorced because we couldn't maintain it. She was living with her girlfriend and I lived by myself. Sometimes our parents would want the family to get together, so we had to put on a show.

Coming out and living congruently to oneself might be in conflict with many cultural values, yet it could also relieve concealment-related stress. For example, Cheng shared his experience of coming out to his therapist:

When I decided to disclose to my therapist that I am gay, I felt healed already. When I thought that I could actually come out to others, all the stress I endured was gone. All my mental pain—the pain of having to date girls, the pain of feeling immoral from dating girls, and the pain of obeying my parents—they just went away. Recognizing the possibility of coming out—I felt so happy.

3.4.3. *Performing masculinity: social status as protection and compensation*

Participants shared the need to “become a successful man” to protect themselves and family members from potential discrimination and to compensate to their parents or their own feelings of inferiority. Participants also noted that working hard and “self-betterment” helped them to reduce feeling incompetent from not fulfilling their social roles (as a man and a son in Chinese society) and feeling “less than others as a man.” Participants reasoned how performing masculinity and adhering to traditional values associated with being a man (e.g., success, status) could bring protection. For example, Sung, a 24-year-old bisexual man, shared:

Many sexual minorities work hard. One function is to make money and live comfortably. Another is to gain privilege. I want to show my parents that I can have a high social status to gain voice. It would also help in social and professional life, because I won't need to fake it anymore. Regardless of whether or not you accept my orientation, you'll have to collaborate with me because I have money and resources.

Similar to Sung, other participants talked about gaining success and social status in a future-oriented sense and it provided drive and motivation for them. The downside of it, however, is additional achievement-related stress. For example, Fung, a 23-year-old gay man, shared:

I want to protect my mother. If I ever come out to my family, I don't

want the views of our relatives to hurt her. Therefore, I can only come out when I have the power. As a sexual minority, a marginalized group, having the power is really important. People won't discriminate against you because they fear you. What I need are social status and financial competence. Being powerful, being rich. I need to work even harder, maybe I'll achieve that in my late 30s and then I can come out.

3.4.4. *Social and community support (in-person and online)*

Participants discussed the significance of reaching and locating interpersonal support from others, both in offline and online spaces. Social support was important for participants to feel accepted, combat stigma, and work towards self-acceptance. For example, Tong (36-year-old gay man) shared:

I thought I had mental illness when I realized that I'm gay. I tried hard to seek answers. When I read an article about how it is normal in a newspaper, I reached out to the author, who connected me to the comrade community in my city. Knowing the community really opened my eyes and realized that we are good and normal.

3.4.5. *Self-empowerment: finding agency, self-acceptance, and choice*

In dealing with minority stress from the culture, family, social relations, and internalized stigma, participants discussed the importance of “self-empowerment.” Participants interpreted self-empowerment as “having a strong, resilient heart,” “ignoring others' disapproval,” and choosing one's own path. It also involved knowing oneself and sometimes asking hard questions, such as figuring out one's views of the world. For example, Yanyan shared:

My parents pressured me to marry for several years. I had a lot stress during that time so I had to find a way to deal with it. I was thinking every day: Am I wrong? Is my life wrong? Is it really that it's just normal for a man to marry a woman—I know that's the tradition in this country. Then I had to come to my own conclusion. We are in a different time now. We have technology and even mobile phones. So, I thought, I decided to not care what others say and just walk my own path, step by step. Maybe I will find light on this path. But even if it is darkness, it is my own choice.

Participants discussed how living one's life in an “untraveled path” can involve de-constructing a heteronormative life and having the courage to be innovative. For example, Chen shared:

I have to make decision on which difficult life to live. I can conceal who I am, marry a woman, and obey my parents' wishes, but the destiny of that path is not what I want. It's against my heart. If I live as who I am, it will be difficult too, but I am willing. It will be innovative, as it did not exist in our cultural context. Whether it is how I form a stable partnership, how I raise children, or how I get along with my parents—all of them need my exploration and navigation.

3.4.6. *Advocacy and educating others*

Participants shared that an important aspect of coping with minority stress was to advocate (“make voice for sexual minorities”) and educate the public. For example, Jerin shared:

Discrimination exists because people are not educated about this. Thus, I have come out and I advocate for sexual minorities and do public service to change people's prejudice. This work has given me power. What we have to do is to let others know that we are not what they think.

Advocacy also reflects an active approach to cope with the lack of rights. For instance, Rong noted:

Every one of us, as this country's citizen, we must have civic

awareness. There is no free lunch— many rights cannot be given by the government and you have to fight for it. Whether it is support from the society or the government, it relies on us to fight for it.

4. Discussion

The current study explored experiences of minority stress and how such experiences impact psychological and behavioral health among Chinese men who have sex with men. Using grounded theory, our findings demonstrated (a) the relevance of minority stress in this population and (b) the need to incorporate culture as a relevant dimension and to conceptualize processes of minority stress in the sociocultural context. With the notably high and increasing adverse health among MSM in China and globally (Beyrer et al., 2012; Chow et al., 2011; Gao et al., 2009; King et al., 2008), our findings provide insight into the complex experiences and challenges that MSM face and they offer a culturally-relevant perspective to address this public health issue.

There were some differences regarding our findings from the current literature on minority stress, which has largely based on research in western countries. Overall, findings reveal that for Chinese MSM, stress experiences and processes related to one's sexuality as well as their impact cannot be separated from MSM's cultural context.

Like many East Asian countries, Chinese culture is heavily influenced by Confucianism and emphasizes collectivism, social harmony, and family relations (Kim, 2009). In this cultural context, people are taught and expected to behave in accordance to their social roles rather than feelings, desires, or personal beliefs (Nuyen, 2009). This phenomenon is evident in participants' feelings of guilt towards their parents for not marrying and having children. Thus, for Chinese MSM, the culture of heteronormativity, conformity, and filial piety is a powerful source of stress which also influences all other aspects of minority stress and coping processes. For instance, culture shapes people's perception of individual differences. Conformity to prevailing social norms in Asian cultures are desired whereas being different is considered as deviant (H. S. Kim and Markus, 1999). What results is an experience of stigma regarding being a Chinese MSM in a sense of incompetence due to unfulfilled social responsibilities as well as being "abnormal".

Compared to literature in the west on varied types of discrimination experiences among gay and bisexual men (Huebner et al., 2004), participants in this study reported less experiences of physical violence or other overt forms of discrimination (e.g., losing a job or housing) due to sexual orientation. This might be related to the fact that most participants were only selectively out to others. Experiences of victimization reported by participants were more interpersonal in nature. However, this may be particularly detrimental for Chinese MSM, as social support is crucial to survival and a healthy sense of self in East Asian cultures (H. S. Kim et al., 2008).

A critical finding is the salience of cultural and social sources of minority stress and their significant impact on the psychosocial and behavioral health among Chinese MSM. As participants discussed, a meaningful and fulfilling life is narrowly defined in the culture, and living outside of this socially constructed "blueprint" can leave individuals feeling meaningless. Emotions including fear, shame, and loneliness were the result of internalized homophobia (e.g., belief that one is abnormal). Feelings of inferiority and social withdrawal may prevent Chinese MSM from self-disclosure and seeking support, and therefore create further isolation. Among them, shame may be a particularly powerful emotion due to its indication of losing face, inferiority, and incompetence for not reaching goals defined by the culture (Li et al., 2004).

HIV-related behavioral health was affected by various processes including cultural- and social-based minority stress and individuals' psychological health (Fig. 1). Such effects manifest in individual-level behaviors (e.g., HIV testing) as well as in relational and community health (e.g., norms regarding sex roles and sexual practices linked to

HIV risk). Intersectional stigma (simultaneously experiencing stigma related to sexuality and HIV) was related to extreme fear and catastrophizing of HIV testing, avoidance behaviors, and the lack of an accurate understanding of HIV risk. Whether MSM considered their HIV risk as extremely high or low, both were inaccurate perceptions that served a function in avoiding testing and further increasing victimization. On a community health level, applying a heterosexual "template" into same-sex relationships may reflect the lack of established non-binary relational norms within the Chinese MSM community as well as potential gender diversity-related reasons (e.g., MSM who also identify as female may prefer to play the female role). It might also suggest Chinese MSM's needs of creating stability and structure in romantic relationship, as other societal norms such as marriage cannot be achieved.

Participants demonstrated a great amount of resilience. The Coping category complements Meyer's point (2015) that coping is an essential part of minority stress theory. As experiences of minority stress and their impact are multi-leveled, it is not surprising that participants' coping strategies were responsive at individual (e.g., self-empowerment), social, and cultural (e.g., performing masculinity, advocacy) levels. It is also important to note that findings did not suggest a dichotomized pattern of "positive" and "negative" coping. Rather, each strategy has its cost and differed impact on health outcomes. For example, performing masculinity may help to achieve privilege and protection, yet could also create additional achievement-related stress. Similarly, self-empowerment and coming out may alleviate distress related to internalized stigma and concealment, yet they could also increase the likelihood of facing more disapproval and discrimination.

4.1. Limitations

There are several limitations to this study. First, participants' sexual identification (Table 1) may limit of generalizability of findings to Chinese MSM who identify as bisexual, pansexual, queer, or non-labeled. Second, the data we gathered was based on one interview with each participant, which may limit participants' comfort level in discussing certain sensitive and challenging topics. Because the interview was conducted by a Chinese female cisgender researcher, it may have also impacted participants' comfort level in discussing their sexual history and behaviors due to cultural factors. Third, many participants expressed appreciation at the end of the interview for having a space to talk about their sexuality and life, noting that it was rare and they felt a sense of relief. As such discussion were scarce for participants, we observed some participants had difficulty articulating their feelings and thoughts, which was reflective of both the lack of prior processing and the longstanding impact of stigma. However, it may also impact accurate data interpretation (e.g., data regarding internal process may be less available for some participants). Last, since our research questions focused on minority stress, it naturally elicits participants' experiences of rejection, discrimination, and victimization. We want to caution against the generalization of such experiences to all Chinese MSM. For instance, several participants ($n = 4$) noted parents' acceptance following initial rejection.

4.2. Implications

4.2.1. Implications to minority stress theory and related research

Our findings have implications for minority stress theory and health research focused on sexual minorities globally. The most important theoretical implication is to include culture as a relevant dimension when conceptualizing minority stress. Specifically, our findings suggest the need to incorporate certain elements of the culture as *both a direct source of minority stress as well as an influencer on other minority stress processes* (Fig. 1). In this regard, we suggest taking a nuanced approach to understand culture, recognizing that it is dynamic and non-static, and understanding that certain cultural values may be more salient for

certain subgroups. We recommend future research on MSM in the global context to incorporate measures of culture and cultural values. Further, quantitative research with MSM in China can use theory-driven statistical methods (e.g., Logie et al., 2020) to provide clarification on the roles of emerged categories and potential pathways of the theoretical framework developed from this study. Longitudinal research is also needed to explore the timeline of stress and adverse outcomes.

Second, the impact of various stressors needs to be conceptualized within sexual minorities' sociocultural context. For example, concealment in Meyer's model (2003) has been regarded as a source of distress due to the complex cognitive, emotional, and behavioral processes in concealing one's identity, feelings, and thoughts. Yet, in cultures where norm conformity is valued, people are less socialized to be congruent to oneself but rather to behave out of socially assigned responsibilities (Kokkoris and Kühnen, 2014). In this context, the separation of one's private self from social and public performance is expected (Butler et al., 2007)—for example, from emotional suppression to performing heterosexism—and therefore concealment maybe more commonly employed and less distressing. Similarly, when researching coping, it may be helpful to consider coping efforts targeting minority stress at various levels (individual, social, community, and culture) and to contextualize coping in the culture. What is considered as adaptive coping depends on the context and the individual's needs. Future research may investigate the health impact of coping strategies among Chinese MSM (e.g., performing masculinity).

Third, findings of the present research offer valuable reflection points for the discourse and research on minority stress theory (Diplacido, 1998; Meyer, 2003), which has inspired a large body of health disparities research. Specifically, it may be important to evaluate minority stress research, which primarily comes from western-based samples, in their sociocultural context. For instance, do certain aspects of individualistic culture, meaning of manhood, and historic context (e.g., religion) shape the psychosocial experience of stigma? How may cultural differences in the construction of self (i.e., identity) play a role in the internalization process of minority stress? Further, empirical research on minority stress insofar has largely taken an “event-focused” approach (e.g., encounters of discrimination and microaggression) when studying external stressors, and findings of the current study support expanding it to certain aspects of the environment (e.g., cultural emphasis on heterosexual marriage, norm conformity, discriminative policies against LGBTQ individuals) as stressors contributing to health disparities experienced by sexual minorities globally (Perales and Todd, 2018).

Study findings indicate several potentially fruitful areas for future research. One issue for future exploration is gender diversity among Chinese MSM. Research focused on transgender people in China has noted the more fluid gender concept in Chinese society (Chiang, 2012), and future research should seek further understanding in gender identity and gender role among Chinese sexual minorities. In a related vein, less is known about gender expression-based discrimination against MSM in China, so research may want to investigate the impact of gender expression-based stress and coping (i.e., performing masculinity) on mental and sexual health among Chinese MSM, given its relevance in MSM in other countries such as India (Logie et al., 2012). Understanding how the interaction (Logie et al., 2020) and intersection of stigma (Sun et al., 2018) may affect health among Chinese MSM is also needed.

Future research may also investigate how experiences of minority stress and their impact may differ among subgroups of MSM based on various characteristics (e.g., sexual identity, age, education, income). Large sample investigations will be suitable and can inform tailored interventions to reduce minority stress and improve well-being among subgroups of MSM.

4.2.2. Implications for HIV prevention programs and services

The study illustrates how HIV prevention research and program

development with MSM in China can benefit from a minority stress perspective. HIV-related behavioral health among Chinese MSM cannot be separated from their psychological health, experiences of victimization and marginalization, and the larger sociocultural pressure to conform and perform a heterosexual life. Thus, HIV prevention efforts that solely focus on behaviors (e.g., increasing condom use and testing) would have a limited effect, if minority stress factors leading to mental health issues, sexual practices that elevate HIV risk, and suboptimal testing are not addressed.

Minority stress-informed intervention in the U.S. (Pachankis et al., 2015) showed promising effects in reducing stigma and promoting mental and behavioral health for MSM. HIV prevention interventions in China may benefit from a similar approach, although we caution application without appropriate cultural adaptation and a nuanced understanding of the community's needs. As social support emerged as a critical source of resilience, MSM in China may benefit from intervention efforts that engage families and the comrade community to promote interpersonal connectivity, community support, and alliance. Larger cultural changes may be challenging, yet HIV prevention efforts can increase awareness of how cultural factors such as the heterosexual norm may affect MSM's relational and psychological well-being and HIV-related behavioral health. Such awareness on both individual and community levels may serve as the first step for further discussion of alternative norms that may better serve MSM communities in China.

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CRedit authorship contribution statement

Shufang Sun: Conceptualization, Data curation, Funding acquisition, Investigation, Methodology, Project administration, Supervision, Formal analysis, Writing - original draft, Writing - review & editing. **Stephanie Budge:** Conceptualization, Methodology, Supervision, Writing - review & editing. **Wenxuan Shen:** Formal analysis, Conceptualization. **Ge Xu:** Formal analysis, Conceptualization. **Muqing Liu:** Formal analysis, Conceptualization. **Siqi Feng:** Formal analysis, Conceptualization.

Declaration of competing interest

No authors has any conflict of interest to report.

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