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Research report

Mental health literacy and the experience of depression in a community sample of gay men

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ABSTRACT

Background: Gay men are at higher risk of suffering from a variety of psychiatric disorders, yet the mental health literacy of this population has remained largely unknown.
Methods: In 2007 and 2011, surveys were conducted among gay men in Geneva, Switzerland, recruited by probability-based time-space sampling. Based on a case vignette of a man with major depression, respondents were asked a series of questions about labelling, perceived risk, and help-seeking beliefs. Men meeting caseness for major depression were asked open questions about perceived causes and additional help-seeking/self-help.
Results: Among the 762 respondents, 14.7% met diagnostic criteria for major depression (MDD) in the past 12 months. The vignette was labelled depression by 44.1% of the entire sample, and 61.9% of the men with MDD. Discrimination (33.2%), acceptance or rejection by others (21.4%), and loneliness (24.9%) were the most common reasons given for greater susceptibility among gay men, yet men with MDD reported problems with love/relationship (32.5%) and work (28.9%) as the most common perceived causes of recent depression, and problems with love/relationship (21.9%), accepting one's homosexuality (21.1%), and family (20.2%) at initial outset. The highest proportions of gay men rated non-medical options such as a close friend (91.6%), relaxation exercises or meditation (84.4%), and physical activity (83.5%) as being helpful for the depression vignette.
Limitations: No probes used for open questions, and findings generalizable only to gay men in the sampling scheme.
Conclusions: There are many commonalities in labelling, perceived causes, and help-seeking with general populations, but also numerous specificities in mental health literacy and experience among gay men.

1. Introduction

The high lifetime prevalence of mental disorders generally (25%) and major depression in particular (12.8%) (ESEMeD/MHEDEA 2000 investigators, 2004a) is coupled with low rates of help-seeking (ESEMeD/MHEDEA 2000 investigators, 2004b) in the general population. To better understand this situation, research on mental health literacy has yielded valuable insights into knowledge, attitudes, and behaviors vis-à-vis mental disorders like depression in the general population (Jorm, 2000, 2012), informing population campaigns to improve recognition, help-seeking, and prevention (Francis et al., 2002; Jorm, 2012). Interdisciplinary research in cultural epidemiology (Weiss, 2001) has described the experience of depression among patient groups, thereby capturing the socio-cultural context and facilitating culturally sensitive diagnosis, care, and prevention (Raguram et al., 1996; Jadhav et al., 2001).

Recent reviews summarize the body of evidence for higher prevalence and risk of depression among sexual minorities generally (lifetime OR=2.03, 12-month OR=2.05) and among gay men in particular (lifetime OR=2.58, 12-month OR=2.41) (King et al., 2008; Corboz et al., 2008). A health survey among gay men in Geneva, Switzerland, confirmed high prevalences of depression (lifetime self-report 40%, 12-month diagnosis 19%) in this population, coupled with early onset, high comorbidity, and low levels of awareness of one's own depression and professional help-seeking (Wang et al., 2007b). Given its distinctive socio-demographic (Gates and Ramos, 2008) and psychiatric profiles, this population may demonstrate a distinctive profile in mental health literacy and a distinctive experience of depression. Yet despite higher risk, nothing has been published to date on either issue for sexual minorities.

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We drew on state-of-the-art approaches to mental health literacy with reference to features of cultural epidemiology as both fields share in-depth assessment of symptoms, causes, and help-seeking that centers on the citizen's or patient's perspective. In particular, (1) we describe how a community sample of gay men understands and responds to depression using mental health literacy. Given the high prevalence, (2) we also describe the experience of depression among gay men fulfilling diagnostic criteria using cultural epidemiology. By identifying actual cases of major depression, we are also able to compare (3) understanding between cases and non-cases as well as (4) understanding and experience among the cases.

2. Methods

The Geneva Gay Men's Health Survey (GGMHS) was conducted in 2002, 2007, and 2011. The 2007 and 2011 waves focused on mental health and also provided the indicators for a pre- and post-intervention study for the depression awareness campaign Blues-out (Wang et al., 2013).

2.1. Samples

The study design has been described in detail elsewhere (Wang et al., 2013). Briefly, the target population consisted of gay-identified men and other men who have sex with men who access meeting points – both real and virtual – in Geneva, Switzerland. All surveys employed time-space sampling, a multi-stage randomized sampling scheme developed by the Centers for Disease Control and Prevention (CDC), involving mapping of meeting points, enumeration of visits, and random selection of both venues and participants (MacKellar et al., 1996; Stueve et al., 2001). Men who were randomly selected and agreed to participate could complete the anonymous survey in French directly on-site at laptops provided or later online via a unique access code. In 2007, 276 gay men participated in the survey (response rate 44%), whereas in 2011, the target sample size was doubled, and 486 gay men participated (response rate 38%).

2.2. Survey questions

In 2007 and 2011, the survey instrument focused on (1) mental health status and (2) mental health literacy. Both sections were supplemented with items from the Explanatory Model Interview Catalog (EMIC) (Weiss, 1997) used in cultural epidemiology.

Mental health status was assessed by a series of questions recommended by the EUROHIS project on harmonizing indicators for health interview surveys in Europe (Nosikov and Gudex, 2003) —i.e., (1) self-reported history of chronic depression and chronic anxiety taken from a standardized check-list of chronic conditions modified to yield both 12-month and lifetime prevalences (Eurostat, 2007) and (2) assessment of 12-month major depression, simple phobia, and social phobia by the WHO Composite International Diagnostic Interview Short Form (CIDI-SF) (Kessler et al., 1998). Those men meeting caseness for major depression or either of the two forms of anxiety were asked open questions about perceived causes for the most recent episode and at initial outset of symptoms and additional help-seeking/self-help (NB: probes for consulting professionals and medication/substance use are already included in the CIDI-SF) as per EMIC (Weiss, 1997).

Mental health literacy was assessed by detailed instruments developed by Jorm et al. (2006) used in Australia and elsewhere. Based on a case vignette of a man with major depression according to the DSM-IV, respondents were then asked a series of questions about the vignette, including labelling, perceived risk, help-seeking beliefs about people and professionals, help-seeking beliefs about substances (incl. medications), and help-seeking beliefs about activities (incl. therapies). A series of core items recommended by the European Alliance Against Depression (EAAD) was included to assess general attitudes towards depression—i.e., treatability and anti-depressants (Hegerl, 2007). For the sub-section on perceived risk of various groups for depression, we created a new question on the relative susceptibility of gay men vs. heterosexual men and, for those believing in different susceptibility, an open question on the reasons why. The final questions using the vignette were a new series on the impact of gay-friendly providers on help-seeking if the man in the vignette is gay.

2.3. Analysis

Open questions and specific probes are commonly used in both mental health literacy and cultural epidemiology research. The verbatim responses to the open questions ranged from a single word to an entire paragraph. Since most responses were brief, and since quite a few responses contained spelling errors for key terms, they were imported into an Excel file and hand-coded by one researcher in at least 3 separate iterations. At each iteration, the codes were compared within and between questions, so that an overall framework emerged which facilitated identification of key terms and comparison across all open questions for depression, anxiety (simple and social phobias), and suicide attempt in both 2007 and 2011. The findings for suicide attempt are presented elsewhere (Wang et al., submitted for publication), and only the findings for depression are covered here.

In order to facilitate tabulation and further analysis, the individual codes were grouped into over-arching categories which were also harmonized across all open questions and both datasets. For the open questions on labelling the vignette, reasons for gay men's greater susceptibility for the vignette, and perceived causes of major depression in the past 12 months, a strict distinction was made between “disease” and “problem” along the following categories: disease (unspecified), mental disorder, somatic disease, problems (general), mental problems, social/interpersonal problems, lifestyle problems, problems with homosexuality, and “don't know”. The open questions on help-seeking/self-help activities were categorized into professional solutions, social solutions (general and loved ones), and individual solutions (personal development, psycho-behavioral methods, and lifestyle activities). All codes and categories were reviewed by a second researcher.

Data analysis was performed using IBM SPSS Statistics for Macintosh version 19.0 (Chicago, IL, USA). The codes for the open questions were imported into SPSS, so that qualitative data may be integrated into quantitative data analysis. The categories were formed in SPSS according to the iteration framework. For the sake of clarity and concision, only codes with a prevalence of over 5% are shown in the tables together with all the categories for both understanding and experience of depression. In order to compare understanding between cases and non-cases, we performed bivariable analyses with depression as the dependent variable, using both self-reported depression ($\leq$ 12 months, $>$ 12 months, never) and CIDI-SF major depression in the past 12 months (diagnosis, screen positive only, screen negative). For the most part, the findings on mental health literacy are comparable between self-reported depression and CIDI-SF major depression. Furthermore, for nearly all of the codes reported here, the responses by men self-reporting depression prior to the past 12 months and never could be collapsed into a single group as could those for men screen positive without caseness and screen negative for major depression in the past 12 months.

The findings reported in this paper focus on the entire community sample of gay men and a sub-sample of gay men meeting

diagnostic criteria for major depression in the past 12 months (diagnosis vs. no diagnosis). Since no differences in the mental health literacy items were evidenced between 2007 and 2011 (Wang et al., 2013) and in order to increase statistical power for the latter, we present the findings for the combined 2007 and 2011 dataset. Finally, we include select quotations from over a dozen different respondents to illustrate key themes.

3. Results

3.1. Diagnostic profile

During the study period, 13.3% of the respondents self-reported depression in the past 12 months, and 50.6% self-reported depression in their lifetime. As for the depression vignette, 21.9% of the respondents reported experiencing the condition depicted in the vignette in the past 12 months, and 56.6% in their lifetime.

According to the CIDI-SF, 14.7% of the respondents met diagnostic criteria for major depression (MDD) in the past 12 months. An additional 22.3% were screen-positive for having depressed mood and/or anhedonia for a continuous two-week period in the past 12 months. Half of MDD cases (49.5%) actually self-reported depression in the past 12 months, whereas 60% of MDD cases actually reported experiencing the condition depicted in the vignette in the past 12 months.

3.2. Labelling/recognition

Table 1 lists the most common labels for the depression vignette. Although there are 46 different codes for this question with an average 1.5 codes per respondent, only 4 items met the 5% threshold. The most common label was depression, correctly identified by 44.1% of the sample. This was followed by depressed mood (or "déprime" in French) at 13.9% and problems with love/relationship at 11.5%. The most common categories were mental disorder (44.8%), mental problems (24%), and social problems (20.3%). In addition to depressed mood, the category of mental problems includes low morale, malaise, sadness/melancholy, fatigue, etc… In addition to problems with love/relationship, the category of social/inter-personal problems includes loneliness, problems at work, burnout, etc… Overall, 66.1% reported a disease, 49.5% a problem, and only 2.9% "don't know".

Table 1
Labels for the condition depicted in a depression case vignette, Geneva Gay Men's Health Surveys 2007-2011.

	Total ($N=762$)		MDD* ($n=105$)	No MDD ($n=608$)	p-Value
	n	%	%	%	
Disease (unspecified)	126	16.5	8.6	18.4	0.01
Mental disorder	341	44.8	62.9	42.1	< 0.001
Depression	336	44.1	61.9	41.4	< 0.001
Somatic disease	93	12.2	10.5	12.8	0.50
HIV/AIDS	69	9.1	8.6	9.4	0.79
Problems (general)	71	9.3	9.5	9.9	0.91
Mental problems	183	24.0	18.1	25.8	0.09
Depressed mood ("déprime")	106	13.9	12.4	14.8	0.52
Social/inter-personal problems	155	20.3	20.0	20.4	0.92
Love/relationship	88	11.5	14.3	11.2	0.36
Lifestyle problems	21	2.8	2.9	2.6	0.90
Problems with homosexuality	21	2.8	3.8	2.6	0.50
Don't know	22	2.9	1.0	2.6	0.30

NB: Spontaneous responses to open question coded (only those with 5% or higher shown) and grouped into categories (all shown); multiple responses possible.

* CIDI-SF diagnosis for major depression (MDD) in the past 12 months.

Men who met caseness for major depression in the past 12 months were significantly more likely to label the depression vignette as such (61.9% vs. 41.4%, $p < 0.001$) and significantly less likely to report an unspecified disease (8.6% vs. 18.4%, $p=0.01$). Men who self-reported depression in the past 12 months were significantly more likely to label the vignette as depression than those who self-reported an earlier episode of depression or never having experienced depression (66.3% vs. 45.7% vs. 38%, $p < 0.001$). Similarly, men who reported experiencing the vignette in the past 12 months or prior were significantly more likely than those who never experienced the vignette to label it as depression (57.6% vs. 46.2% vs. 37.2%, $p < 0.001$).

3.3. Perceived causes

All respondents were asked whether they believed gay men are more/less/equally susceptible to the condition depicted in the depression vignette than heterosexual men: half the respondents (51.4%) believed gay men to be more susceptible, 41.1% equally susceptible, 0.6% less susceptible, and 6.9% did not know. None of the 4 men (0.6%) who believed gay men are less susceptible identified the vignette as depicting depression. Significantly more men with major depression in the past 12 months affirmed that gay men (71.4% vs. 48.5%, $p < 0.001$) and single people (59% vs. 37.8%, $p=0.001$) are more likely to experience the condition depicted in vignette.

As seen in Table 2, the respondents who believed gay men to be more susceptible reported discrimination (33.2%), acceptance or rejection by others (21.4%), and loneliness (24.9%) most frequently. Other reasons include poor self-image (12.3%) and hiding oneself (12.1%). These aforementioned causes fall within two of the top three categories social/inter-personal problems (78%) or mental problems (25.7%). Problems related explicitly to one's homosexuality (29.1%) – e.g., difficulties in coming to terms with one's own

Table 2
Reasons why gay men are more susceptible to the condition depicted in a depression case vignette, Geneva Gay Men's Health Surveys 2007–2011.

	Total ($n=373$)		MDD* ($n=75$)	No MDD ($n=295$)	p-Value
	n	%	%	%	
Disease (unspecified)	6	1.6	0.0	2.0	0.21
Mental disorder	8	2.1	1.3	1.7	0.83
Somatic disease	22	5.9	1.3	7.1	0.06
HIV (risk/stress)	22	5.9	1.3	7.1	0.06
Problems (general)	43	11.5	16.0	10.2	0.16
More difficult/unstable life	16	4.3	9.3	3.1	0.02
Mental problems	96	25.7	20.0	27.0	0.21
Fear	23	6.1	2.7	6.8	0.18
Self-image	46	12.3	8.0	13.2	0.22
Weaker/more sensitive	35	9.4	9.3	9.5	0.97
Social/inter-personal problems	291	78.0	80.0	77.6	0.66
Discrimination	124	33.2	36.0	32.2	0.53
Acceptance/rejection by others	80	21.4	21.3	21.4	1.00
Hiding oneself	45	12.1	16.0	11.2	0.26
Loneliness	93	24.9	25.3	25.1	0.97
Love/relationship	28	7.5	6.7	7.8	0.74
Family	19	5.1	4.0	5.1	0.70
Lifestyle problems	6	1.6	2.7	1.4	0.42
Problems with homosexuality	109	29.1	38.7	27.0	0.05
Homosexuality/identity	32	8.6	12.0	7.8	0.25
Being different	29	7.8	10.7	7.1	0.31
Being a minority/heteronormativity	29	7.8	13.3	6.4	0.05
Gay scene	30	8.0	6.7	8.4	0.61
Don't know	2	0.5	0.0	0.7	0.48

NB: Spontaneous responses to open question coded (only those with 5% or higher shown) and grouped into categories (all shown); multiple responses possible.

* CIDI-SF diagnosis for major depression (MDD) in the past 12 months.

homosexuality and coming out, stress/superficiality of the gay scene, and being a minority in a heteronormative society – constitute the second-most common category.

Quotations from the respondents themselves illuminate these figures. Already evident to many respondents in the initial question on labelling, "depression never happens without a reason," and some volunteer causes from the problem categories. "There are two categories of reasons" at the macro level for gay men's greater susceptibility to depression: "(1) social and cultural repression of homosexuality and (2) internal pressures within the gay scene". Within the first category, some men speak of pressures common to all minorities as an "additional burden", whereas others speak of the specificity of sexual minorities being "outside the norm": "If you don't manage being gay sufficiently well, it makes you fragile and creates doubt and a lack of self-confidence. Even if you manage being gay well, it's not easy to live it in daily life and adds an additional pressure on top of everything else." Others speak more directly of discrimination: "a homosexual child lives a situation of constant and permanent abuse, so it takes an enormous effort to overcome this and be comfortable and positive with oneself." One man contextualizes the nexus of causes nicely: "In our society, homosexuality is seen as a mental illness, and homosexuals are often obliged to hide themselves in order to avoid discrimination. Having to hide themselves and not showing their true personality may cause poor self-esteem and lead to depression." As for the second category, some respondents felt that "the (gay) scene is particularly discriminatory, so one winds up feeling even more rejected".

Men diagnosed with major depression by the CIDI-SF reported similar responses to this question as their counterparts, with the exceptions of being significantly more likely to report being a minority or heteronormativity (13.3% vs. 6.4%, $p=0.05$) and a more difficult or unstable life (9.3% vs. 3.1%, $p=0.02$). Nevertheless, Table 3 shows that the actual causes perceived to have precipitated their own symptoms are quite different from the reasons given for greater susceptibility among gay men generally. There are also important differences in perceived causes/triggers between the most recent episode and at initial outset, with a median interval of 11 years.

Problems with love/relationship (32.5%) and work (28.9%) accounted for over half of the cases in the past 12 months, making social problems the most important category by far (70.2%). The most common perceived causes at initial outset are problems with love/relationship (21.9%), accepting one's homosexuality (21.1%), and family (20.2%), which together account for almost two thirds of the cases. Social problems remain the most important category at 60.5%, followed by problems with homosexuality (22.8%). Only 7% were unable to report a cause for the onset of their symptoms. One respondent's narrative not only demonstrates the normality of multiple causes but also the enduring or repetitive nature of some causes leading to chronic depression: "always the same things: failures, chaotic love life and social life, non-existant guidance and understanding on the part of my parents, and extreme loneliness which has continued to this day and lead to isolation."

Table 3
Perceived causes given by gay men fulfilling diagnostic criteria for major depression in the past 12 months, Geneva Gay Men's Health Surveys 2007-2011 ($n=114$).

	In the past 12 months		At intial outset	
	n	%	*n*	%
Disease (unspecified)	6	5.3	4	3.5
Mental disorder	6	5.3	3	2.6
Somatic disease	1	0.9	1	0.9
Problems (general)	16	14.0	10	8.8
Existential questions	6	5.3	1	0.1
Adolescence	0	0.0	6	5.3
Mental problems	12	10.5	4	3.5
Social/inter-personal problems	80	70.2	69	60.5
Violence	4	3.5	7	6.1
Loneliness	11	9.6	12	10.5
Love / relationship	37	32.5	25	21.9
Family	9	9.7	23	20.2
Work	33	28.9	9	7.9
Lifestyle problems	12	10.5	5	4.4
Substance dependence	6	5.3	1	0.1
Problems with homosexuality	9	7.9	26	22.8
Accepting one's homosexuality	6	5.3	24	21.1
Don't know	6	5.3	8	7.0

NB: Spontaneous responses to open question coded (only those with 5% or higher shown) and grouped into categories (all shown); multiple responses possible.

3.4. Help-seeking and self-help

While the vast majority of respondents believed that depression can be treated (88.7%) and that untreated depression gets worse (79.8%), fewer than half (42.4%) believed that most people with depression recover. Most men believed that anti-depressants have side-effects (80.7%), change one's personality (63.4%), and create dependency (66.5%). These attitudes are shared by men with major depression.

Table 4 presents ratings of helpfulness/harmfulness for a list of specific people, treatments, and medications. The highest proportions of gay men rated non-medical options such as a close friend (91.6%), relaxation exercises or meditation (87.6%), and physical activity (83.5%) as being helpful. Around three-quarters rated health care providers such as psychologists (77.1%) and general practitioners (75.3%) as being helpful. The majority rated doing nothing (87.9%) and dealing with it alone (55%) as being harmful.

Table 4
Beliefs about people, treatments, and medications as help for a depression case vignette, Geneva Gay Men's Health Surveys 2007-2011 ($N=762$).

	Helpful (%)	Harmful (%)	Neither (%)	Don't know (%)
People				
Close friend	91.6	0.7	5.3	2.4
Psychologist	77.1	6.4	11.2	5.3
General practitioner (GP)	75.3	5.6	16.2	2.8
Counsellor	70.2	6.2	15.1	8.5
Close family	66.3	8.8	15.3	9.6
Psychiatrist	51.6	18.8	18.9	10.6
Practitioner of alternative medicine	36.4	17.3	30.8	15.5
Deal with it alone	18.4	55.0	17.2	9.3
Treatments				
Relaxation exercises, meditation	84.4	1.4	10.4	3.7
Physical activity	83.5	2.3	9.8	4.5
Counselling	63.4	3.8	16.6	16.3
Psychotherapy	60.6	8.7	16.0	14.7
Read about problem in a book	53.8	19.0	20.6	6.6
Read about problem online	48.9	11.9	27.2	11.9
Cognitive-behavioral therapy (CBT)	36.8	7.2	19.9	36.1
Light therapy	30.9	6.3	26.3	36.5
Do nothing	1.7	87.6	6.1	4.5
Medications				
Anti-depressants	34.8	40.6	12.2	12.5
Tranquilizers	24.2	48.1	15.0	12.6
St. John's wort	19.9	16.1	26.2	37.8
Sleeping pills	17.2	61.1	12.5	9.2
Pain relievers	6.2	53.9	30.1	9.8

NB: Original response categories to probes are: very helpful, somewhat helpful, neither helpful nor harmful, somewhat harmful, very harmful, don't know.

One fifth of the respondents also rated reading about the problem online (19%) and psychiatrists (18.8%) as harmful. Consistent with the aforementioned attitudes towards anti-depressants, more men rated medications as harmful rather than helpful. Over a third of the men reported not knowing St. John's wort (37.8%), luminotherapy (36.5%), or cognitive-behavioral therapy (36.1%).

The ratings provided by men meeting caseness for major depression in the past 12 months were similar, except that significantly more of these men rated anti-depressants (44.7% vs. 33.4%, $p=0.02$) and tranquilizers (31.5% vs. 23.3%, $p=0.008$) as helpful.

Table 5 presents the actual help-seeking activities of men fulfilling diagnostic criteria of the CIDI-SF for major depression in the past 12 months. The CIDI-SF probes specifically for seeing a doctor (46.6%), other health professionals (45.7%), and use of medications/drugs/alcohol (57.4%). In all, 58.6% saw either a doctor and/or other health professionals. 60% also did something else to feel better, and among their spontaneous responses, seeing friends (17.5%) and doing sports (16.7%) were the two most common activities. The most important categories were lifestyle activities (36%) and loved ones (22.8%). All told, 91.4% reported help-seeking and/or self-help activities from the probes and open question.

If the man in the vignette is gay and has access to a gay-friendly provider, 64.5% of all respondents believed that he would be more likely to consult, 76.3% that he would be more likely to speak openly during the consultation, and 41.3% that the treatment outcome would be more successful. There are no differences by caseness for major depression in the past 12 months.

The very lack of communication and help is perceived as a reason for gay men's greater vulnerability to depression. For example, “it's not easy talking about a gay break-up to one's social circle. Everyone goes through the end of a relationship at one time or another, but for gay men, it's often a world of silence.” This lack of help is often expressed as loneliness as gay men “find themselves dealing with their problems alone and not finding help when they need it” because “it's more difficult to find a confidant in their social circle, and there's greater discomfort in explaining their problems.” Of note, these hindrances are attributed to an over-arching “problem of acceptance at the societal level which makes it more difficult to talk about one's problems, share them, and try to find a solution with someone's help”. As above, some gay men also note that “in the gay scene, men rarely if ever talk about their own problems – e.g., HIV status and problems with sex, work, or relationships – and they force themselves to present an artificially joyous and positive image of themselves.”

Table 5
Help-seeking activities among gay men fulfilling diagnostic criteria for major depression in the past 12 months, Geneva Gay Men's Health Surveys 2007–2011 ($n=114$).

	n	%
General help (unspecified)	0	0.0
Professional solutions		
Doctor*	54	46.6
Other health professionals*	53	45.7
Medications/drugs/alcohol*	66	57.4
Social solutions	8	7.0
Social solutions—loved ones	26	22.8
See friends	20	17.5
Individual solutions—personal development	11	9.6
Personal development	7	6.1
Individual solutions—psycho-behavioral methods	11	9.6
Individual solutions—lifestyle activities	41	36.0
Spend time on activities	14	12.3
Sports	19	16.7
Diet	6	5.3
Going out/partying	7	6.1
Don't know	0	0.0

NB: Spontaneous responses to open question coded (only those with 5% or higher shown) and grouped into categories (all shown); multiple responses possible.

* Specific probe questions.

4. Discussion

This is the first study of mental health literacy and the cultural epidemiology of depression among a gay population. As such, these findings cannot be compared with those from other gay samples but rather with similar studies among the general population. Such comparisons are useful in identifying possible specificities in mental health literacy among gay men. As a unique contribution to the literature, this paper also presents findings on the understanding and experience of people diagnosed with major depression, rendered feasible in a population with higher prevalence, irrespective of the indicator used—i.e., CIDI-SF diagnosis, self-reported depression, and self-reported condition depicted in the vignette (ESEMeD/MHEDEA 2000 investigators, 2004a; Reavley and Jorm, 2011). Self-reported depression has higher sensitivity than self-reported history of the condition depicted in vignette, although the latter was reported more frequently among cases.

4.1. Labelling/recognition

Compared to Australian data through the late 1990s (Jorm et al., 1997; Goldney et al., 2009) and Swiss data (Lauber et al., 2003b; Wang and Schmid, 2007) among the general population, a comparable percentage of gay men labelled the vignette as depression. Nonetheless, this finding is disappointing for two reasons. First, gay men demonstrate much higher education and prior exposure to depression – both factors are correlated positively with precise labelling – than the general population, leading us to hypothesize a correspondingly higher rate of recognition. Second, data in the new millenium show that over 70% of the general population recognize depression in Australia (Jorm et al., 2006; Goldney et al., 2009) and Canada (Bourget and Chenier, 2007; Wang et al., 2007c). Gay men fulfilling diagnostic criteria for or self-reporting depression demonstrate better recognition, but still not at the levels reported elsewhere, suggesting much room for improvement.

The values for the other main labels and categories are quite comparable as well, save for a few noteworthy exceptions. First, stress (22%) is the second most common label in Australia (Jorm et al., 1997; Goldney et al., 2009), whereas in Switzerland, only 6% of the general population (Wang and Schmid, 2007) and 2.6% of gay men labelled the vignette in this way. Second, depressed mood (“déprime” in French) is the second most common label in this survey, but not reported elsewhere as it may be a cultural/linguistic peculiarity. To clarify the distinction, one man described the vignette as “a temporary ‘déprime’ or, more seriously, depression”. Third, HIV/AIDS or risk for HIV/AIDS was the fourth most common label among gay men, although it is not reported in any of the general population surveys. Of course, HIV/AIDS prevalence is many times higher among gay men, and HIV prevention has been the most prominent public health intervention in this community. Finally, a small percentage labelled the vignette as representing someone having problems dealing with his homosexuality even though the vignette does not state anything about the man's sexual orientation.

4.2. Perceived causes

In general population studies, some three out of four respondents believe that the unemployed and the separated/divorced are more likely to experience the condition depicted in a depression vignette, in accordance with actual data (Jorm et al., 2005a).

Despite a growing body of evidence for increased risk of depression among gay men (King et al., 2008; Corboz et al., 2008) and high prevalence of depression among gay men in Geneva (Wang et al., 2007b), only half of the respondents agreed that gay men are more likely to experience the condition depicted in the vignette.

Social/inter-personal problems is the most important category accounting for greater vulnerability of gay men for the depression vignette as well as perceived causes of actual cases of major depression in the past 12 months. However, while discrimination, acceptance/rejection by others, and loneliness are the most common perceived causes for gay men's greater susceptibility, even among gay men fulfilling diagnostic criteria for major depression in the past 12 months, only loneliness is cited spontaneously as a cause by 5% or more of such men.

Rather, problems with love/relationship (mostly break-ups) and family each account for one quarter of the latest and initial episodes, respectively. Fewer than 5% mentioned work in Table 2, but over one quarter cited it as the perceived cause for major depression in the past 12 months. Problems with love/relationship and work are also the top two causes for depression mentioned by the Swiss general population (Lauber et al., 2003a). Overall, the social/interpersonal problems category was also the most important among the Canadian general population (Bourget and Chenier, 2007) and white Britons with depression (Jadhav et al., 2001). Accordingly, social support was considered the top protective factor for good mental health (Bourget and Chenier, 2007).

The category unique to this population is problems with homosexuality. One quarter of the respondents cited causes in this category as accounting for gay men's greater vulnerability. Indeed, this category accounted for one quarter of the cases of major depression at the initial outset. Merely realizing one's difference or sexuality not to mention accepting one's homosexuality are repeatedly qualified as being “difficult”. Qualitive studies reveal that the process of coming out continues to be challenging for most gay people, with a large proportion attributing the onset of their depression symptoms to directly to these issues (Mayock et al., 2009; Diamond et al., 2011).

Problems with love/relationship, family, and coming to terms with one's homosexuality account for over half of the cases at the outset (median age 16), whereas problems with love/relationship and work account for over half of the cases in the past 12 months (median age 31.5). As such, these findings underscore variations in perceived causes over the life course among a population with a high prevalence of mostly chronic/recurrent depression. Qualitative work among gay men in Geneva has shown that love/relationship was rated the most important domain for quality of life, but coupled with the lowest level of satisfaction (Wang et al., 2001). Problems with love/relationship were the most common perceived cause of major depression among gay men. The topic of same-sex relationships should constitute a priority for research and action as well as understanding how the gay scene creates support and/or stress for gay men, especially as some mention a similar dynamic of rejection and silence in both society at large and in the gay scene.

Taken together, the narratives yield a coherent map of both proximal and distal causes at multiple levels, accounting for the apparent discrepancy between the reasons cited for greater vulnerability and the perceived causes of one's own actual depression. While inter-personal problems appear to be the most commonly perceived causes, they are attributed to macro-level causes on the one hand but also aggravate individual-level problems on the other. Causes at the macro, meso, and individual levels are named in this respondent's account:

> Even though we've seen improvements in terms of societal acceptance for homosexuals, there is still fear of marginalization or homophobia. A homosexual person always has to screen those around him—even his friends—in order to find that person who is able to listen to him without prejudice. Even the initial step of self-acceptance, something not readily understood by heterosexuals, already poses the first obstacle and creates a complex of greater suffering.

4.3. Help-seeking

There are striking similarities in help-seeking beliefs between this and general population samples (Jorm et al., 1997; Lauber et al., 2001; Wang et al., 2007c; Goldney et al., 2009). The vast majority believe that it is harmful to deal with the condition alone, and at least as many if not more people consider general practitioners as being as helpful as specialists such as psychologists and psychiatrists. But whereas close friends and family receive similar ratings in the general population, close friends were rated most helpful in this sample, 50% more than close family. Family problems constitute one of the main perceived causes of depression, and the majority of gay men are single. The other discrepancy is that a higher percentage of gay men considered psychiatrists harmful. This may be a remnant of psychiatry's role in pathologizing homosexuality in the 20th century, and a reflection of the predominance of Freudian psychoanalysis among therapists in French-speaking Europe.

Physical activity and relaxation/meditation are rated as the most helpful activities in both this and general population samples. However, bibliotherapy was rated more highly in the general population overseas than among gay men in Geneva. More respondents rated medications such as anti-depressants as being harmful than helpful. However, data from Australia have shown improved ratings for specialists and anti-depressants over time, likely as a result of *beyondblue* campaign activities (Jorm et al., 2005b, 2006; Goldney et al., 2009; Reavley and Jorm, 2011). Such changes were not evidenced in a two-year follow-up of a depression campaign in Nuremberg, Germany (Dietrich et al., 2010).

Given the significant negative impact of major depression on quality of life in this population (Wang et al., 2007a), it is not surprising that over 90% of men with major depression in the past 12 months undertook some help-seeking or self-help activity. Despite predominantly negative attitudes towards medications, half these men consumed medications, drugs, and/or alcohol because of their symptoms. While close friends and physical activity were considered the most helpful sources, only 1 in 5 gay men with major depression actually mentioned having done them, albeit the most common spontaneous responses. Being uncomfortable about asking for help was the second most important reason mentioned for not seeking help in the Canadian general popuation (Bourget and Chenier, 2007), and these narratives suggest that concerns about stigma and coming-out may keep gay men from seeking help not only from one's social circle but also the health care system. These findings underscore the importance of access to gay-friendly health providers, especially for mental health (Dumas et al., 2000).

4.4. Limitations

First, only spontaneous responses were collected for open questions without probes or rankings. Research using the EMIC has shown that the frequency of the response items can change dramatically after probing, although this varies from item to item (Jadhav et al., 2001; Parkar et al., 2008). As such, the frequencies of spontaneous responses should only be understood as a conservative estimate of the prominence of these responses. Coding verbatim responses produced rich sets of items for each question,

even though only one half of the items at most met the threshold criteria for inclusion in the tables.

Second, the mode of data collection in these surveys – self-completed computer-assisted interviews – differs from that of most surveys in mental health literacy (computer-assisted telephone interviews) and cultural epidemiology (face-to-face interviews). As such, the similarities in many findings are all the more striking in light of differences in both data collection and population. Furthermore, the findings reported here have been validated by analyzing the datasets separately and by several modes of assessing depression.

Third, the response rate has dropped from 50% in 2002 to 38% in 2011, despite maintenance of the same recruitment strategy since 2002. The decline may be attributed to the increasing proportion of Internet recruits, a weak recruitment team in 2011, and a certain survey fatigue given the increased frequency of HIV monitor surveys. While the generalizability of these findings is limited to gay men within the sampling scheme of meeting points, confirmation studies have shown that time-space sampling provides robust coverage of gay men living in urban areas (Pollack et al., 2005).

5. Conclusions

Previous studies have identified specificities in psychiatric morbidity – e.g., early onset, high comorbidity, and chronicity (Wang et al., 2007a) – and care – e.g., pathologization and dissatisfaction (McFarlane, 1998) – among gay men. These findings on experience suggest that most cases of depression among gay men arise due to social stress and the higher prevalence of depression among gay men may be attributed to a higher prevalence of causes shared with the general population and the existence of causes specific to sexual minorities. The discrepancies between (1) mental health literacy and actual experience among recent sufferers, (2) recent and ever sufferers, (3) recent sufferers and recent subthreshold, and (4) perceived causes of the latest and initial onset of symptoms point to a need to understand the experience of depression over the life course. In-depth qualitative work should be undertaken to explore the distinction between understanding and experience as well as the prevalence and role of perceived causes at multiple levels (individual, meso, and macro).

These findings can be taken into account when developing campaigns and interventions for the gay community. The many commonalities in labelling, perceived causes, and help-seeking with general populations suggest that evidence-based interventions developed for general populations may be effective in gay populations and vice versa. However, specificities in mental health literacy suggest that mainstream interventions need to be adapted accordingly for the gay community, a population with a high prevalence of chronic/recurrent depression, specific stressors associated with homosexual developmental milestones, and expressed preference for gay-friendly providers. In particular, better understanding of the difficulties gay men have with love/relationships and coming to terms with one's homosexuality are needed in order to devise better support. Despite evidence suggesting great need, there have been few mental health interventions in gay populations to date. Given the high prevalence of mental morbidity, a long history of successful health interventions in HIV, and a highly educated and highly wired community, gay populations constitute an ideal group in which to develop and test mental health interventions in prevention and care.

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Conflict of interest

None.

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