

Gender-related patterns and determinants of recent help-seeking for past-year affective, anxiety and substance use disorders: findings from a national epidemiological survey

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Aims. To examine: (1) gender-specific determinants of help-seeking for mental health, including health professional consultation and the use of non-clinical support services and self-management strategies (SS/SM) and; (2) gender differences among individuals with unmet perceived need for care.

Method. Analyses focused on 689 males and 1075 females aged 16–85 years who met ICD-10 criteria for a past-year affective, anxiety or substance use disorder in an Australian community-representative survey. Two classifications of help-seeking for mental health in the previous year were created: (1) no health professional consultation or SS/SM, or health professional consultation, or SS/SM only, and; (2) no general practitioner (GP) or mental health professional consultation, or GP only consultation, or mental health professional consultation. Between- and within-gender help-seeking patterns were explored using multinomial logistic regression models. Characteristics of males and females with unmet perceived need for care were compared using chi-square tests.

Results. Males with mental or substance use disorders had relatively lower odds than females of any health professional consultation (adjusted odds ratio [AOR]=0.46), use of SS/SM only (AOR=0.59), and GP only consultation (AOR=0.29). Notably, males with severe disorders had substantially lower odds than females of any health professional consultation (AOR=0.29) and GP only consultation (AOR=0.14). Most correlates of help-seeking were need-related. Many applied to both genders (e.g., severity, disability, psychiatric comorbidity), although some were male-specific (e.g., past-year reaction to a traumatic event) or female-specific (e.g., past-year affective disorder). Certain enabling and predisposing factors increased the probability of health professional consultation for both genders (age 30+ years) or for males (unmarried, single parenthood, reliance on government pension). Males with unmet perceived need for care were more likely to have experienced a substance use disorder and to want medicine or tablets or social intervention, whereas their females peers were more likely to have experienced an anxiety disorder and to want counselling or talking therapy. For both genders, attitudinal/knowledge barriers to receiving the types of help wanted (e.g., not knowing where to get help) were more commonly reported than structural barriers (e.g., cost).

Conclusions. Findings suggest a need to address barriers to help-seeking in males with severe disorders, and promote GP consultation. Exploring gender-specific attitudinal/knowledge barriers to receiving help, and the types of help wanted, may assist in designing interventions to increase consultation. Mental health promotion/education efforts could incorporate information about the content and benefits of evidence-based treatments and encourage males to participate in other potentially beneficial actions (e.g., physical activity).

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Introduction

Gender differences in help-seeking for mental and substance use disorders have been extensively documented

(e.g., Wang *et al.* 2005), but little information is available on gender-specific determinants of help-seeking in population-representative samples. This information is essential for tailoring mental health policy, service development and prevention and promotion strategies.

Gender-comparative studies tend to show that males with past-year mental or substance use disorders are one-third to one-half *less* likely than females to have

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consulted a health professional for their mental health within the previous year (Leaf & Bruce, 1987; Bijl & Ravelli, 2000; Burns *et al.* 2000; Proudfoot & Teesson, 2001; Rhodes *et al.* 2002; Wang *et al.* 2005; Levinson & Ifrah, 2010; Reavley *et al.* 2011; Cox, 2014; Fleury *et al.* 2014) although not always (Albizu-Garcia *et al.* 2001; Starkes *et al.* 2005; Grella *et al.* 2009; Smith *et al.* 2013). The differential tends to be greater for consultation with general practitioners (GPs) (Rhodes *et al.* 2006; Wang & Patten, 2007; Bayram *et al.* 2009) and attenuated (Rhodes *et al.* 2002; Hauenstein *et al.* 2006) or absent (Leaf & Bruce, 1987; Bijl & Ravelli, 2000; Burns *et al.* 2000; Reavley *et al.* 2011; Cox, 2014) for consultation with specialist mental health providers, although this may vary according to type of specialist (e.g., ABS, 2008a). Moreover, males with 12-month mental or substance use disorders appear less likely to use support services, such as telephone counselling and internet support groups, and self-management strategies, such as help from family or friends, or reducing alcohol or drug intake (Bijl & Ravelli, 2000; Olesen *et al.* 2010) than females.

Understanding the gender differentials in help-seeking requires gender-specific investigations (Galdas *et al.* 2005). The small number of such studies suggest that certain enabling factors (e.g., rurality, labour force status, income, affordability and availability of services) and need factors (e.g., social and physical functioning, stigmatising beliefs, perceived health status and previous use of mental health services) that may influence service utilisation differently for males and females (Leaf & Bruce, 1987; Albizu-Garcia *et al.* 2001; Hauenstein *et al.* 2006; Tedstone Doherty & Kartalova-O'Doherty, 2010; Gagne *et al.* 2014). However, the findings are variable and therefore difficult to consolidate. These studies have focused on formal mental health services; less is known about gender-specific factors associated with use of support services and self-management strategies (SS/SM) in the absence of health professional consultation.

Among those who do not seek professional help, males have been found less likely than females to perceive a need for treatment (Bijl & Ravelli, 2000; Sareen *et al.* 2007; Ojeda & Bergstresser, 2008; Codony *et al.* 2009; Mojtabai *et al.* 2011; Andrade *et al.* 2014). Males have been found more likely to report stigma and lack of confidence in mental health treatments as barriers to help-seeking in some (Ojeda & Bergstresser, 2008; Nowshad, 2011), but not other (Mojtabai *et al.* 2011; Andrade *et al.* 2014) studies.

Given the gaps and variability in available knowledge – which may be due to methodological, temporal and system-related differences (Leaf & Bruce, 1987) – continued investigation is needed. We used Australian data to investigate four research questions: (1) Do help-

seeking patterns among people with affective, anxiety and substance use disorders differ according to gender and severity? (2) Within each gender, what factors are associated with health professional consultation or use of SS/SM only? (3) Within each gender, what factors are associated with type of health professional consulted? (4) Do clinical characteristics, types of help needed and barriers to care differ between males and females with unmet perceived need for care?

Methods

Survey and sample

Data were drawn from the 2007 National Survey of Mental Health and Wellbeing (NSMHWB), a nationally representative survey of Australians aged 16–85 years (Slade *et al.* 2009). Respondents were identified from a stratified multistage probability sample of private dwellings in urban and rural areas across Australia. Younger (16–24 years) and older (65–85 years) people were intentionally oversampled to improve the reliability of estimates for these groups. Surveys of 90 minutes average duration were administered by trained lay interviewers using a Computer-Assisted Personal Interview. A 60% response rate ($N = 8841$) was obtained (Slade *et al.* 2009).

Measures

Diagnostic assessment

International Classification of Diseases (ICD-10) criteria (World Health Organization, 1992) past-year affective, anxiety and substance use disorder diagnoses were established using the World Mental Health Composite International Diagnostic Interview (WMH-CIDI 3.0) (Kessler & Üstün, 2004). Individuals with any past-year disorder were classified into severity groups (mild, moderate or severe) using an algorithm taking into account all disorders experienced in the past year (see Table 1 for further detail).

Health professionals consulted and the use of SS/SM

A service utilisation module asked respondents whether they had consulted any of eight types of health professionals for mental health in the previous year: GPs; psychiatrists; psychologists; mental health nurses; other professionals (e.g., social workers, occupational therapists and counsellors) providing specialist mental health services; other professionals providing generalist health services; other specialist doctors/surgeons, and; complementary/alternative therapists. The interviewer prefaced these questions with the statement: 'The next

few questions are about problems with your mental health. This includes but is not restricted to such things as stress, anxiety, depression or dependence on alcohol or drugs'. The interviewer then proceeded with a series of questions on service utilisation for 'mental health', referring the respondent back to the previous definition.

In the Australian health system, mental health and alcohol and drug treatment services are delivered by a complex array of public, private and non-government services across residential, inpatient and community settings. Primary care physicians (GPs) provide care to a substantial proportion of individuals with mental and substance use disorders, regardless of severity, and are the gate-keepers to specialty care, particularly in the private sector. Private specialists generally treat both mental and substance use disorders, although subspecialists may be found. Within the public and non-government sectors, services for mental and substance use disorders have historically operated under largely parallel systems. These services tend to be targeted towards individuals with more severe disorders (more so in the mental health sector, whereas prevention and harm minimisation are major components of the specialist drug and alcohol service system), and do not require primary care referral.

Table 1. Prevalence of ICD-10 past-year mental and substance use disorders by gender and severity among 8830 survey respondents

	Males (<i>n</i> = 4022) % (95% CI)	Females (<i>n</i> = 4808) % (95% CI)
Any past-year ICD-10 mental or substance use disorder ^a	17.7 (15.7–19.6)	22.2 (20.9–23.5)
Severity ^b (among those with any past-year ICD-10 mental or substance use disorder)		
Mild	50.0 (44.4–55.7)	43.7 (38.3–49.0)
Moderate	30.4 (25.8–35.0)	35.5 (30.7–40.3)
Severe	19.6 (15.1–24.1)	20.9 (17.2–24.5)

^aIncludes affective (depression, dysthymia and bipolar affective disorder), anxiety (panic disorder, agoraphobia, social phobia, generalised anxiety disorder, obsessive-compulsive disorder and post-traumatic stress disorder (PTSD)) and substance use (harmful use and dependence syndrome for each of: alcohol, opioids, cannabinoids, sedatives and stimulants) disorders.

^bClassification of 'severe' required one or more of the following in the past 12 months: a suicide attempt; a manic episode; ≥ 2 areas of role impairment on the Sheehan Disability Scales (SDS); or functional impairment equivalent to a score of ≤ 50 on the Global Assessment of Functioning. 'Moderate' required moderate role impairment for one domain on the SDS. 'Mild' comprised all remaining cases (Slade et al. 2009).

The use of other options for mental health in the previous year was also assessed. Options deemed potentially helpful were grouped as support services (internet support group or chat room, other self-help and telephone counselling) or self-management strategies (exercise/physical activity, enjoyable activities, support from friends/family and less alcohol/drugs) as per a previous study (Olesen et al. 2010).

Using the information described above, we created two classifications of help-seeking in the previous year. The first was 'health professional consultation or SS/SM only': (1) no health professional consultation or use of SS/SM; (2) any health professional consultation (with or without SS/SM); or (3) SS/SM only. The second was 'type of health professional consultation': (1) no GP or mental health professional consultation; (2) GP only consultation; or (3) mental health professional (psychiatrist, psychologist, mental health nurse or other professional providing specialist mental health services) consultation with or without other health professionals. People consulting other types of health professional but not a GP or mental health professional were excluded from the second classification.

Unmet perceived need for care and barriers to care

The Perceived Need for Care Questionnaire (Meadows et al. 2000) asked whether respondents with a likely mental or substance use diagnosis who did not consult a health professional in the previous year wanted any of five types of help: information about mental illness; medicine or tablets; counselling or talking therapy; social intervention; or skills training. These respondents were then asked to select from a list the reasons they did not receive each type of help; we grouped these reasons as *structural barriers* or *attitudinal or knowledge barriers* (shown in Table 5).

Other measures

We used Andersen's Behavioural Model of Health Care Use (Andersen & Newman, 1973) to organise factors potentially associated with help-seeking. *Predisposing factors* were age group, marital status, single parent living with a dependent child, post-school qualification and employment status. *Enabling factors* were urbanicity, relative socioeconomic disadvantage, household financial problems, receiving income from a government pension and social support. *Need factors* were severity, type of past-year diagnosis, psychiatric comorbidity (≥ 2 past-year mental or substance use disorders), onset of disorder >10 years ago, suicidality (thoughts, plans or attempts) in the previous year, days out of role in the past 30 days, reaction to a traumatic event in the previous year, family member with

chronic mental disorder, self-assessed mental health, self-assessed physical health and any chronic physical condition in the previous year.

Data analysis

We analysed data from the 2007 NSMHWB Basic Confidentialised Unit Record File (April 2009) using Stata version 11 (StataCorp, 2009) procedures that take account of the complex survey design. Data were weighted to account for survey selection bias and to ensure conformity with the Australian population. Standard errors and confidence interval (CI) were derived using the jackknife repeated replication method. Of 8841 respondents, 11 were excluded due to missing data.

Proportional differences between males' and females' help-seeking, overall and by the level of severity, were compared using adjusted odds ratios (AORs) from multinomial logistic regression models controlling for age group. Outcome categories were as defined by our two classifications of help-seeking. Logistic regression analyses, controlling for age group, examined whether differences in proportions were due to gender, severity or the interaction of gender and severity.

Associations between help-seeking and predisposing, enabling and need factors were examined using multinomial logistic regression models, stratified by gender. Because some factors were correlated with each other, we developed separate models for each factor, controlling for severity and age group which have been shown to be important determinants of service utilisation (Wang *et al.* 2007; Reavley *et al.* 2010). Chi-square tests compared the characteristics, types of help needed and barriers to care between males and females with unmet perceived need for care.

Results

Of the 8830 survey respondents in this analysis, 17.7% of males and 22.2% of females reported symptoms consistent with a past-year affective, anxiety or substance use disorder (see Table 1). The percentages in each severity group did not differ significantly between males and females ($\chi^2 = 7.6$, $p = 0.222$).

Do help-seeking patterns among people with affective, anxiety and substance use disorders differ according to gender and severity?

Overall, 51.3% of males and 67.3% of females with mental or substance use disorders had sought professional help or used only SS/SM for their mental health in the previous year (Table 2, upper panel). After controlling for age, males had relatively lower odds than females of consulting a health professional (AOR =

0.46), primarily reflecting the relatively lower probabilities of consultation among males with severe or mild disorders. Males also had relatively lower odds than females of using only SS/SM (AOR = 0.59), primarily reflecting the relatively lower probability of use of these non-clinical supports among males with mild disorders. With respect to the type of professional consulted, males had relatively lower odds than females of consulting only a GP (AOR = 0.29). This gender differential was significant within each level of severity (Table 2, middle panel). For both our classifications of help-seeking, the observed patterns were due to the independent effects of gender and severity (Table 1, lower panel).

Within each gender, which predisposing, enabling and need factors are associated with health professional consultation or use of SS/SM only?

We examined the within-gender role of various factors in determining health professional consultation or use of SS/SM only in the previous year. Table 3 shows the results of logistic regression models adjusted for age and severity of disorder (percentages and chi-square results are provided in Supplementary Table 1). Among males, certain predisposing factors (age 30–85 years, unmarried and single parenthood) and need factors (moderate or severe disorder, psychiatric comorbidity, past year suicidality, past year trauma reaction, family history and self-assessed poor mental health) increased the odds of professional consultation among males. Two of these factors (single parenthood and severity) also increased the odds of using SS/SM only among males, as did one additional enabling factor (not receiving a government pension) and one additional need factor (1–7 days out of role).

Among females, only one predisposing factor (age 30–44 years) was positively associated with health professional consultation. Several significant need factors were shared with males (moderate or severe disorder, psychiatric comorbidity, family history and self-assessed poor mental health), although a further two (past-year affective disorder and >7 days out of role) were important for females only. Three of the need factors (severe disorder, >7 days out of role and family history) were also associated with increased odds of using SS/SM only among females, as was one predisposing factor (not employed).

Within each gender, what factors are associated with type of health professional consulted?

We also examined within-gender factors associated with type of health professional consulted in the previous year (Table 4 and Supplementary Table 2). Among

Table 2. Probability of help-seeking for mental health in previous year, by severity of disorder, among males and females with past-year affective, anxiety or substance use disorders

Gender and severity	Health professional consultation or SS/SM only			Type of health professional consultation ^a		
	No health professional consultation or SS/SM	Any health professional consultation	SS/SM only	No GP or mental health professional consultation	GP only consultation	Mental health professional consultation
	Males (n = 689)			Males (n = 676)		
	n = 313	n = 186	n = 190	n = 504	n = 50	n = 122
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Mild	67.7 (60.0–75.3)	13.0 (5.8–20.2) ^b	19.3 (14.0–24.6)	87.5 (80.5–94.6)	2.4 (0.8–3.9) ^b	10.1 (3.3–16.9) ^b
Moderate	36.3 (27.1–45.5)	34.4 (27.1–41.6)	29.3 (22.8–35.8)	67.8 (60.5–75.2)	8.2 (4.2–12.2)	23.9 (16.9–31.0)
Severe	19.4 (9.0–29.8) ^b	54.0 (40.9–67.2)	26.6 (14.9–38.2)	47.7 (34.6–60.8)	5.9 (2.4–9.3) ^b	46.5 (33.3–58.7)
Total	48.7 (42.9–54.5)	27.5 (22.1–33.0)	23.8 (19.5–28.0)	73.8 (68.5–79.2)	4.8 (3.1–6.5)	21.4 (16.1–26.6)
	Females (n = 1075)			Females (n = 1020)		
	n = 325	n = 470	n = 280	n = 606	n = 158	n = 256
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Mild	47.4 (41.5–53.2)	22.2 (16.9–27.5)	30.4 (23.9–36.8)	80.3 (0.8–0.9)	7.9 (0.5–11.1)	11.7 (7.2–16.2)
Moderate	29.3 (21.8–36.8)	44.1 (36.7–51.5)	26.6 (20.6–32.6)	59.7 (52.3–67.1)	16.0 (11.9–20.1)	24.2 (17.4–31.1)
Severe	8.0 (3.2–12.8) ^b	71.9 (62.2–81.6)	20.1 (12.3–27.9)	29.2 (19.1–39.3)	23.5 (15.4–31.6)	47.3 (36.6–57.9)
Total	32.8 (28.4–37.1)	40.4 (35.5–45.2)	26.9 (23.3–30.4)	62.5 (57.7–67.2)	14.0 (11.4–16.6)	23.5 (19.4–27.6)
	Males (v. Females)^c					
		AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)
Mild		0.42 (0.19–0.92)*	0.44 (0.28–0.70)**	0.28 (0.12–0.66)**	0.81 (0.30–2.22)	
Moderate		0.63 (0.35–1.11)	0.89 (0.49–1.63)	0.44 (0.23–0.86)*	0.88 (0.51–1.50)	
Severe		0.29 (0.11–0.72)**	0.54 (0.20–1.49)	0.14 (0.06–0.37)***	0.55 (0.27–1.13)	
Total		0.46 (0.30–0.70)**	0.59 (0.42–0.84)**	0.29 (0.18–0.47)***	0.78 (0.51–1.12)	
	Analysis^c					
			Wald χ^2 (p)			Wald χ^2 (p)
Gender			3.66 (0.032)			8.43 (<0.001)
Severity			13.03 (<0.001)			15.36 (<0.001)
Gender × severity			1.19 (0.325)			1.34 (0.268)

SS/SM, support services or self-management; GP, general practitioner; n, unweighted number; %, weighted percentage; CI, confidence interval; AOR, adjusted odds ratio; *, $p < 0.05$; **, $p < 0.01$; ***, $p < 0.001$.

^aAnalyses for 'Type of health professional consulted' exclude respondents who reported consulting other types of health professional but not a GP or mental health professional (55 males and 13 females), as they were not sufficient in number to be included as separate group.

^bRelative standard error of the estimate (RSE) is between 25% and 50%: estimate should be interpreted with caution.

^cModels are adjusted for age group.

Table 3. Gender-specific factors associated with 'health professional consultation or SS/SM only' for mental health reasons in the previous year among males and females with past-year affective, anxiety or substance use disorders

	Males (<i>n</i> = 689)			Females (<i>n</i> = 1075)		
	No health professional consultation or SS/SM (<i>n</i> = 313) AOR (95% CI) ^a	Any health professional consultation (<i>n</i> = 186) AOR (95% CI) ^a	SS/SM only (<i>n</i> = 190) AOR (95% CI) ^a	No health professional consultation or SS/SM (<i>n</i> = 325) AOR (95% CI) ^a	Any health professional consultation (<i>n</i> = 470) AOR (95% CI) ^a	SS/SM only (<i>n</i> = 280) AOR (95% CI) ^a
Predisposing factors:						
Age: 30–44 years (<i>v.</i> 16–29 years)	1.0	2.9 (1.4–6.3)**	–	1.0	1.9 (1.1–3.2)*	–
Age: 45–85 years (<i>v.</i> 16–29 years)	1.0	3.4 (1.4–8.2)**	–	–	–	–
Not married (<i>v.</i> married)	1.0	1.9 (1.1–3.4)*	1.9 (1.1–3.4)*	–	–	–
Single parent status	1.0	5.3 (1.1–24.8) ^{b*}	n.p.	–	–	–
Not employed	–	–	–	1.0	–	1.8 (1.1–3.0)*
Enabling factors:						
Income from government benefit	1.0	–	0.4 (0.2–0.9)*	–	–	–
Need factors:						
Severity: Moderate (<i>v.</i> mild)	1.0	4.9 (2.0–11.6) ^{b**}	2.8 (1.6–4.9) ^{b***}	1.0	3.2 (1.9–5.5) ^{b***}	–
Severity: Severe (<i>v.</i> mild)	1.0	14.7 (6.2–34.9) ^{b***}	4.8 (1.9–11.7) ^{b**}	1.0	19.3 (8.4–44.6) ^{b***}	3.9 (1.8–8.5) ^{b**}
Affective disorder	–	–	–	1.0	3.8 (1.9–7.5) ^{b***}	–
Psychiatric comorbidity: ≥2 disorders (<i>v.</i> one)	1.0	3.1 (1.2–8.4)*	–	1.0	1.9 (1.1–3.5)*	–
Days out of role in past 30 days: 1–7 days (<i>v.</i> 0 days)	1.0	–	1.8 (1.0–3.2) ^{***}	–	–	–
Days out of role in past 30 days: >7 days (<i>v.</i> 0 days)	–	–	–	1.0	3.8 (2.0–7.4) ^{***}	2.3 (1.0–4.9)*
Past-year suicidality	1.0	3.6 (1.2–10.8) ^{b*}	–	n.p.	n.p.	n.p.
Reaction to traumatic event in previous year ^c	1.0	2.4 (1.3–4.6)**	–	–	–	–
Family member with chronic mental disorder	1.0	1.9 (1.0–3.7)*	–	1.0	2.1 (1.4–3.2)**	1.8 (1.2–2.9)*

Continued

Table 3. Continued

	Males (<i>n</i> = 689)			Females (<i>n</i> = 1075)		
	No health professional consultation or SS/SM (<i>n</i> = 313) AOR (95% CI) ^a	Any health professional consultation (<i>n</i> = 186) AOR (95% CI) ^a	SS/SM only (<i>n</i> = 190) AOR (95% CI) ^a	No health professional consultation or SS/SM (<i>n</i> = 325) AOR (95% CI) ^a	Any health professional consultation (<i>n</i> = 470) AOR (95% CI) ^a	SS/SM only (<i>n</i> = 280) AOR (95% CI) ^a
Self-assessed mental health: fair-poor (<i>v.</i> excellent-very good-good)	1.0	3.5 (1.8-6.8) ^{***}	-	1.0	3.3 (1.6-7.1) ^{b**}	-

SS/SM, support services or self-management; %, weighted number; AOR, adjusted odds ratio; CI, confidence interval; -, not statistically significant in model; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; n.p., not provided due to small numbers in some cells. A small number of cases were excluded due to missing data on some variables.

^aResults are from separate multinomial logistic regression models controlling for age and severity of disorder. Only factors meeting the $p < 0.05$ criterion for statistical significance are shown. Only factors meeting the $p < 0.05$ criterion for statistical significance are shown. Other factors examined were: predisposing factors (post-school qualifications [yes/no]); enabling factors (urbanicity [major urban area *v.* other], relative socioeconomic disadvantage measured using the Index of Relative Socioeconomic Disadvantage (ABS, 2008b) [higher disadvantage, deciles 1-3 *v.* lower disadvantage, deciles 4-10], household financial problems [any of the following: could not pay electricity, gas or telephone bills on time; could not pay for car registration or insurance on time; pawned or sold something; went without meals; unable to heat my home; sought assistance from welfare/community organisations; sought financial help from friends or family, yes/no], social support [having three or more people to rely on or three or more people confide in; yes/no]); need factors (past-year anxiety disorder [yes/no], past-year substance use disorder [yes/no], onset of disorder >10 years ago [yes/no], self-assessed poor physical health [fair-poor *v.* excellent-very good-good], any chronic physical condition in previous year [yes/no]).

^bResults are based on data in which the relative standard error of the estimate (RSE) for an estimate was between 25% and 50%: estimate should be interpreted with caution.

^cReaction to a traumatic event in the previous year was determined using the WMH-CIDI 3.0 PTSD module. Respondents were asked whether they had ever experienced any of a wide range of traumatic events. Those who answered affirmatively were asked whether they had ever had 'any physical or emotional reactions following the traumatic event' and, if they said yes, were asked if they 'had reactions in the past 12 months to any traumatic event'.

Table 4. Gender-specific factors associated with ‘type of health professional consultation’ for mental health reasons in the previous year among males and females with past-year affective, anxiety or substance use disorders

	Males (n = 676)			Females (n = 1020)		
	No health professional consultation (n = 504) AOR (95% CI) ^a	GP only consultation (n = 50) AOR (95% CI) ^a	Mental health professional consultation (n = 122) AOR (95% CI) ^a	No health professional consultation (n = 606) AOR (95% CI) ^a	GP only consultation (n = 158) AOR (95% CI) ^a	Mental health professional consultation (n = 256) AOR (95% CI) ^a
Predisposing factors:						
Age: 30–85 years (<i>v.</i> 16–29 years) ^a	1.0	3.7 (1.3–10.7) ^{b*}	3.1 (1.4–6.8) ^{b**}	1.0	1.9 (1.2–3.0)*	1.7 (1.0–2.8)*
Enabling factors:						
Income from government benefit	1.0	–	2.8 (1.3–6.0)**	–	–	–
Need factors:						
Severity: Moderate (<i>v.</i> mild)	1.0	4.4 (1.9–10.6) ^{b**}	3.0 (1.2–7.9) ^{b*}	1.0	2.7 (1.5–4.9)**	2.8 (1.5–5.2)**
Severity: Severe (<i>v.</i> mild)	1.0	4.5 (1.7–12.0) ^{b**}	8.3 (3.6–19.5) ^{b***}	1.0	8.3 (4.3–16.3)***	11.3 (5.3–24.2)***
Affective disorder	–	–	–	1.0	3.7 (2.0–6.9)***	2.9 (1.5–5.4)**
Psychiatric comorbidity: ≥2 disorders (<i>v.</i> one)	1.0	–	3.4 (1.2–9.7)*	1.0	1.9 (1.1–3.2)*	1.8 (1.1–3.0)*
Past-year suicidality	1.0	4.6 (1.6–12.7) ^{b**}	–	–	–	–
Days out of role in past 30 days: >7 days (<i>v.</i> 0 days)	–	–	–	1.0	3.5 (1.9–6.8)***	–
Reaction to traumatic event in previous year ^c	1.0	–	2.6 (1.4–5.0)**	–	–	–
Family member with chronic mental disorder	–	–	–	1.0	–	1.6 (1.1–2.5)*
Self-assessed fair-poor mental health ^d	1.0	3.2 (1.5–6.7)**	3.7 (1.7–7.8)**	1.0	2.5 (1.5–4.1)**	2.5 (1.4–4.4)**
Self-assessed fair-poor physical health ^d	–	–	–	1.0	1.8 (1.1–3.0)*	–

%, weighted number; AOR, adjusted odds ratio; CI, confidence interval; –, not statistically significant in model; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Analyses for ‘Type of health professional consulted’ exclude respondents who reported consulting other types of health professional but not a GP or mental health professional (55 males and 13 females), as they were not sufficient in number to be included as separate group.

^aResults are from separate multinomial logistic regression models controlling for age and severity of disorder. Only factors meeting the $p < 0.05$ criterion for statistical significance are shown. Other factors examined were: predisposing factors (marital status [married *v.* not married], single parent status [yes/no], post-school qualifications [yes/no], unemployed [yes/no]); enabling factors (urbanicity [major urban area *v.* other], relative socio-economic disadvantage measured using the Index of Relative Socioeconomic Disadvantage (ABS, 2008b) [higher disadvantage, deciles 1–3 *v.* lower disadvantage, deciles 4–10], household financial problems [any of the following: could not pay electricity, gas or telephone bills on time; could not pay for car registration or insurance on time; pawned or sold something; went without meals; unable to heat my home; sought assistance from welfare/community organisations; sought financial help from friends or family, yes/no], social support [having three or more people to rely on or three or more people confide in; yes/no]); need factors (past-year anxiety disorder [yes/no], past-year substance use disorder [yes/no], onset of disorder >10 years ago [yes/no], any chronic physical condition in previous year [yes/no]). Age was aggregated into two groups due to small numbers.

^bResults are based on data in which the relative standard error of the estimate (RSE) for an estimate was between 25% and 50%: estimate should be interpreted with caution.

^cReaction to a traumatic event in the previous year was determined using the WMH-CIDI 3.0 PTSD module. Respondents were asked whether they had ever experienced any of a wide range of traumatic events. Those who answered affirmatively were asked whether they had ever had ‘any physical or emotional reactions following the traumatic event’ and, if they said yes, were asked if they ‘had reactions in the past 12 months to any traumatic event’.

^dSelf-assessed poor physical and mental health (fair-poor *v.* excellent-very good-good).

males, one predisposing factor (age 30–85 years) and several need factors (moderate or severe disorder, past-year suicidality and self-assessed poor mental health) were positively associated with consulting a GP only. Most of these factors were also associated with consulting a mental health professional (age 30–85 years, moderate or severe disorder and self-assessed poor mental health), as was one enabling factor (reliant on government pension) and two further need factors (psychiatric comorbidity and past-year reaction to trauma).

Among females, older age (30–85 years) was the only predisposing factor associated with GP only consultation. Most significant factors were need-related (moderate or severe disorder, past-year affective disorder, psychiatric comorbidity, >7 days out of role, self-assessed poor mental health and self-assessed poor physical health). Older age was also the only predisposing factor associated with mental health professional consultation and most significant factors were need-related (moderate or severe disorder, past-year affective disorder, psychiatric comorbidity, self-assessed poor mental health and family history). Past-year suicidality was higher among females consulting a mental health professional, but did not reach statistical significance (AOR=2.0, 95% CI 1.0–4.2, $p=0.053$) due to small numbers.

Do clinical characteristics, types of help needed and barriers to care differ between males and females with unmet perceived need for care?

Few males and females with a past-year disorder who *had not* consulted a health professional in the previous year reported wanting help in the forms of information about mental illness, medicine or tablets, counselling or talking therapy, social intervention or skills training (males 14.5%, 95% CI 9.6–19.5%; females 17.5%, 95% CI 12.8–22.2%; $\chi^2_1=1.6$, $p=0.395$). Among males and females who had not consulted but *did* want any of these types of help, relatively more males had an affective or substance use disorder and more females had an anxiety disorder (Table 5). Relatively more males wanted medicine or tablets, or social intervention, whereas more females wanted counselling or talking therapy. Barriers to care differed little between genders, except that a greater percentage of females reported preferring to manage themselves.

Discussion

This study contributes a comprehensive picture of gender-related patterns in recent help-seeking in a population-representative sample. We consider key

findings and their implications for mental health policy, research and service delivery.

Australian males with mental or substance use disorders were less likely than females to consult a health professional. Much of this disparity was accounted for by their lower probability of GP only care. This is a concern given that, in Australia, GPs are more accessible geographically than mental health professionals and are usually the point of referral to specialist care.

Greater severity of disorder increased the probability of seeking professional help, an indicator that treatment resources are being allocated according to need. Worryingly, however, males with severe disorders were less likely than similar females to consult a health professional. Intriguingly, the probability of mental health professional consultation increased with severity for both females and males, whereas the probability of GP consultation increased with severity for females but not males. Patient and provider factors may contribute to these patterns. Males' less positive beliefs, attitudes and intentions regarding help-seeking (Holzinger *et al.* 2012a) may be less influential when the problem is more severe and specialist care is required (Smith *et al.* 2013). Males may also be more receptive to the mental health specialty sector than to the general medical sector (Leaf & Bruce, 1987). Alternately, GPs may be more likely to treat females themselves and to refer males to specialists (Wang *et al.* 2005), particularly when the disorder is more severe, however Australian data to confirm this are lacking. Together these findings highlight a need to promote GPs as an appropriate avenue for seeking help for males, and to address barriers to professional help among males with more severe disorders.

Males were not necessarily using other options in the absence of professional consultation. They were also less likely to rely on SS/SM, indicating a need for educational campaigns to encourage males to participate in other potentially beneficial actions, such as physical activity (Rosenbaum *et al.* 2014; Wang *et al.* 2014; Wegner *et al.* 2014), particularly if they do not consult a health professional.

As expected, many indicators of need (e.g., severity, disability, self-assessed poor mental health and psychiatric comorbidity) were positively associated with help-seeking in both genders, particularly consultation with mental health specialists. The role of other need factors was gender-specific. After controlling for severity and age, having an affective disorder increased the probability of consulting a GP only or a mental health professional among females, but not males – as reported elsewhere (Rhodes *et al.* 2002; Kovess-Masfety *et al.* 2014). Conversely, affective disorder was more common among males than females

Table 5. Characteristics, types of help wanted, and barriers to care among males and females with an affective, anxiety or substance use disorder who did not consult a health professional for mental health in the previous year and reported unmet perceived need for care

	Males (<i>n</i> = 70) ^a		Females (<i>n</i> = 96) ^a		Males <i>v.</i> females	
	%	95% CI	%	95% CI	χ^2	<i>P</i>
Severe disorder (<i>v.</i> mild or moderate)	42.7	24.3–61.1	24.7	11.5–37.9 ^b	6.0	0.083
Affective disorder	49.6	33.7–65.4	29.3	16.6–41.9	7.1	0.050
Anxiety disorder	58.9	42.9–75.0	79.6	68.6–90.5	8.4	0.042
Substance use disorder	37.0	20.4–53.7	12.9	3.4–22.4 ^b	13.3	0.012
Use of support services or self-management	62.2	46.4–78.0	62.9	43.5–82.4	0.0	0.949
Type(s) of help wanted:						
Information about mental illness	34.9	20.8–49.0	40.2	22.1–58.3	0.5	0.608
Medicine or tablets	22.2	9.4–35.0	7.8	2.5–13.1	7.0	0.020
Counselling or talking therapy	55.3	38.6–71.9	80.2	69.5–90.9	12.0	0.012
Social intervention	59.3	43.3–75.3	29.8	17.0–42.6	14.6	0.005
Skills training	11.7	4.4–19.0 ^b	18.9	11.7–26.3	1.6	0.207
Structural barriers:						
‘I couldn’t afford the money’	n.p.		16.9	6.4–27.4	n.p.	
‘I asked but didn’t get the help’	n.p.		n.p.		n.p.	
‘I got help from another source’	9.9	2.5–17.4 ^b	n.p.		n.p.	
Any of the above structural barriers	33.5	15.3–51.6 ^b	23.9	10.9–37.0 ^b	1.8	0.336
Attitudinal or knowledge barriers:						
‘I didn’t know where to get help’	20.9	6.2–35.6 ^b	10.3	4.3–16.2 ^b	3.6	0.095
‘I preferred to manage myself’	37.8	22.7–52.9	64.0	52.6–75.4	11.3	0.004
‘I didn’t think anything could help’	16.8	6.7–26.8	8.8	3.4–14.3 ^b	2.4	0.140
‘I was afraid to ask for help, or of what others would think of me if I did’	16.3	6.9–25.7	20.0	11.0–29.0	0.4	0.575
Any of the above attitudinal or knowledge barriers	73.7	57.3–90.1	81.7	72.1–91.2	1.5	0.380

%, weighted percentage; CI, confidence interval; n.p., not provided due to small cell sizes.

^aDuring the interview, respondents were classified as to whether they had a likely mental health diagnosis and, of this group, those who reported no service use were asked whether they had wanted any of five types of help in the previous year but not received it, and the reasons for not receiving it. This meant that 462 of the 503 males and 554 of the 605 females with an affective, anxiety or substance use disorder who did not consult were asked these questions. Of the 462 males, 14.5% (*n* = 70) reported unmet perceived need for care; of the 550 females, 17.5% (*n* = 96) reported unmet perceived need for care.

^bRelative standard error of the estimate (RSE) is between 25 and 50%; estimate should be interpreted with caution.

with unmet perceived need for care. It has been suggested that men with depression are less able to recognise their symptoms (Kilmartin, 2005) and tend to attribute psychological distress to external factors (Moller-Leimkuhler, 2002). When they do seek professional help, males tend to describe a somatic symptom profile which can hinder correct diagnosis and treatment (Moller-Leimkuhler, 2002; Rochlen *et al.* 2010), indicating a need for education efforts to assist men to accurately recognise symptoms of depression.

Past-year reaction to a traumatic event increased the odds of mental health professional consultation among males, possibly because stigma associated with consultation is lessened when an external cause can be identified (Reavley & Jorm, 2011a, b). Certain events, e.g., exposure to violent crimes, may increase the likelihood of mental health service use (Elhai *et al.* 2006). Investigation of gender-specific patterns, by type of

event, is indicated but was beyond the scope of this study. Past-year suicidality increased the odds of GP-only consultation among males. Sample size limitations precluded us from exploring this factor fully for females, but positive associations have been reported elsewhere (Gagne *et al.* 2014). Structured training for GPs has been shown to improve diagnostic accuracy for mental disorders and reduce subsequent suicide attempts (Mann *et al.* 2005).

Self-assessed poor physical health was associated with increased GP only consultation among women, consistent with previous research (Matheson *et al.* 2014). Women are more likely than men to consult GPs for mental and physical health reasons (Parslow *et al.* 2011), therefore strategies to promote GPs enquiring about mental health problems among males who present to them for physical or mental health reasons are needed (Brownhill *et al.* 2003).

Of the predisposing factors, younger age was associated in both genders with underutilisation of GP only and mental health professional consultation, but not with use of SS/SM only, supporting continued development of community-based youth mental health services (McGorry *et al.* 2007) and technology-based interventions to engage young people (Rickwood *et al.* 2007; Burns *et al.* 2010). Unmarried men and male single parents were more likely to consult a health professional and to rely on SS/SM. This presumably reflects a lack of alternative emotional and practical supports among unpartnered males, and possibly a reliance on partners among partnered males.

Of the enabling factors, receipt of a government pension was positively associated with mental health professional consultation, possibly reflecting a higher concentration of need in this group. It was also inversely associated with reliance on SS/SM. Possibly, self-stigma may discourage participation in support groups, or lack of resources (e.g., internet access or travel costs) may limit the available options (Tedstone Doherty & Kartalova-O'Doherty, 2010).

The lack of gender difference in the prevalence of unmet perceived need for care may reflect the impact of targeted anti-stigma efforts which have become core components of mental health policies and programs in Australia provided by government (Department of Health and Ageing, 2009) and the not-for-profit sector (e.g., via beyondblue [www.beyondblue.org] and The Movember Foundation [www.movember.com]).

Regarding barriers to care, relatively more women with unmet perceived need for care preferred to manage themselves. This is consistent with our finding that females are more likely to rely on SS/SM, and with general population studies reporting females as more likely to endorse self-help strategies (Jorm *et al.* 2000; Holzinger *et al.* 2012b) and to engage in self-care of health (Trojan *et al.* 2006; Holzinger *et al.* 2012b; Schmitz *et al.* 2012). Among those with mental or substance use disorders, however, reliance on self-management may be a concern if it increases delay into treatment (Sareen *et al.* 2007; Prins *et al.* 2011) or is not adequate for the severity of symptoms experienced (Olesen *et al.* 2010). Further research is needed to understand the appropriateness, quality and outcomes associated with SS/SM.

Unlike previous US studies (Ojeda & Bergstresser, 2008; Nowshad, 2011), stigma and mistrust of mental health treatment were no more common among men than women. Attitudinal and knowledge barriers were more important than structural barriers regardless of gender, consistent with findings from different health systems (Sareen *et al.* 2007), suggesting a possible focus for ongoing mental health literacy efforts in Australia.

We found higher percentages of affective or substance use disorders among males with unmet perceived need for care and a higher percentage of anxiety disorders among women, contrasting with a Netherlands study showing higher percentages of mood and substance use disorders among similar women (Bijl & Ravelli, 2000). Treatment preferences also varied by gender, with males more likely to want social interventions and medicine or tablets, and less likely to want counselling or talking therapy, although the latter was nonetheless endorsed by more than half (55%) of males. Reported preferences may reflect a desire among some males for treatments they perceive as less onerous or more congruent with traditional notions of masculinity, but these might not be consistent with practice guideline recommendations. Targeted information messages describing the benefits and expectations – e.g., time commitment, side effects and adherence – of evidence-based treatment options for specific disorders seem indicated.

Limitations

We extended previous gender-comparative analyses of help-seeking among Australians with mental and substance use disorders (e.g., Burgess *et al.* 2009; Teesson *et al.* 2009; Olesen *et al.* 2010; Reavley *et al.* 2010). However, data were cross-sectional so the temporal relationship between help-seeking and explanatory factors cannot be established. Small cell sizes limited the reliability of some estimates; these have been noted. Our study was not sufficiently powered to investigate gender-specific associations between specific barriers to care and type of disorder, which have been reported elsewhere (Sareen *et al.* 2007). Characteristics associated with help-seeking may have changed since 2007, reflecting enhancements to primary mental health care and other reforms, the uptake of internet-delivered psychological therapies, and changes in population mental health literacy. As analyses have not been stratified by disorder class or type, caution should be applied in extrapolating these results to specific disorder groups.

Conclusions

Women are often identified in mental health policy documents as having specific service needs related to gender-based abuse and perinatal depression (e.g., New Zealand Minister of Health, 2006; Mental Health and Drugs Division, 2009; South Australia Health, 2010; UK Department of Health, 2011). Men are less commonly identified as a priority population in these documents and more so in suicide prevention policy documents, due to their higher rate of suicide

(e.g., ABS, 2013), and some broader health policy documents (e.g., Department of Health, 2010). Findings from this study suggest that mental health policy documents could incorporate a stronger gender focus, targeting subpopulations of males and females with specific clinical needs or risk of poorer access to care.

Supplementary material

To view supplementary material for this article, please visit <http://dx.doi.org/10.1017/S2045796015000876>

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Conflict of Interest

None.

Ethical Standard

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008.

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